Attachment 3

# Section 32 Evaluation Report

## Consideration of alternatives, benefits and costs

**Proposed Plan Change 8 (Discharge management)**

**to the Regional Plan: Water for Otago**

**Proposed Plan Change 1 (Dust suppressants and landfills)**

**to the Regional Plan: Waste for Otago**

*This Section 32 Evaluation Report should be read in conjunction with Proposed Plan Change 8 (Discharge management) to the Regional Plan: Water for Otago and Proposed Plan Change 1 (Dust suppressants and landfills) to the Regional Plan: Waste for Otago.*

Otago Regional Council

**9 April 2020**

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# Abbreviations

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|---|---|
| ORC | Otago Regional Council |
| NPSFM | National Policy Statement for Freshwater Management 2014 (amended 2017) |
| LWRP | Otago Land and Water Regional Plan (to be notified in 2023) |
| PC1 | Proposed Plan Change 1 (Dust suppressants and landfills) to the Waste Plan |
| PC6A | Plan Change 6A |
| PC6AA | Proposed Plan Change 6AA |
| PC8 | Proposed Plan Change 8 (Discharge management) to the Water Plan |
| PORPS 2016 | Proposed Otago Regional Policy Statement – Decisions version |
| PORPS 2019 | Partially Operative Regional Policy Statement 2019 |
| PIP | Progressive Implementation Programme |
| RPS 1998 | Regional Policy Statement for Otago 1998 |
| RMA | Resource Management Act 1991 |
| The Plan Changes | Proposed Plan Change 8 to the Water Plan and Proposed Plan Change 1 to the Waste Plan |
| Waste Plan | Regional Plan: Waste for Otago |
| Water Plan | Regional Plan: Water for Otago |

# Executive Summary

Otago Regional Council (ORC) has approved the commencement of a review of the Regional Plan: Water for Otago and Regional Plan: Waste for Otago and a Progressive Implementation Programme for giving effect to the National Policy Statement for Freshwater Management 2014 (as amended 2017; NPS-FM). While this longer-term work is undertaken, ORC is proposing a series of plan changes[1] to address known deficiencies in the current planning framework. Collectively, these will introduce a strengthened interim management regime for specific water quality and quantity issues in Otago that will, in time, be superseded by a new Land and Water Regional Plan (LWRP).

Proposed Plan Change 8 (Discharge Management) to the Water Plan and Proposed Plan Change 1 (Dust suppressant and landfills) to the Waste Plan introduce a range of amendments targeting specific issues or activities known to be contributing to water quality issues in parts of Otago. Primarily this occurs by introducing new or amended provisions managing a range of rural activities as well as sediment from earthworks to address practices contributing to not achieving the water quality outcomes sought for Otago. In summary:

- Proposed Plan Change 8 amends existing, and introduces new provisions for:
    - Managing, through enhanced policy direction, decision-making on stormwater, wastewater and rural discharges
    - Effluent storage and application to land through new minimum standards
    - Promoting good farming practices, including better managing contaminant loss from intensive grazing and stock access to water bodies as well as incentivising the use of small in-stream sediment traps
    - Improving management of sediment loss from earthworks for residential development, and
    - Clarifying provision for nationally and regionally significant infrastructure in wetlands
- Proposed Plan Change 1 amends existing provisions for:
    - Use of dust suppressants and waste oil, and
    - Minimum standards for new landfills

[1] Proposed Plan Change 6AA to the Regional Plan: Water (notified in October 2019); Proposed Plan Change 7 to the Regional Plan: Water (notified on 18 March 2020); and Proposed Plan Change 8 to the Regional Plan: Water and Proposed Plan Change 1 to the Regional Plan: Waste (the Plan Changes that are the subject of this section 32 evaluation report).

# 1. Introduction

## 1.1. Purpose

The Resource Management Act 1991 (RMA) requires councils, when proposing changes to plans, to prepare an evaluation report in accordance with section 32 of the RMA. The purpose of this report is to set out the evaluation that ORC has undertaken of Proposed Plan Change 8 (Discharge Management) to the Water Plan and Proposed Plan Change 1 (Dust suppressant and landfills) to the Waste Plan (the Plan Changes).

Section 32 requires that the objectives of the Plan Changes must be examined for their appropriateness in achieving the purpose of the RMA and that the benefits, costs and risks of new policies and rules need to be clearly identified and assessed. This report documents the analysis under section 32 so stakeholders and decision-makers can understand the rationale for policy choices.

The Plan Changes are intended to strengthen Otago's regional planning framework in the interim period while a new Regional Policy Statement is prepared and the Water Plan and Waste Plan reviews are undertaken.

## 1.2. Structure

This report has been structured to reflect that it covers both Plan Changes, as follows:

- Part 1: Introduction
- Part 2: Consultation
- Part 3: Evaluation of Proposed Plan Change 8 to the Water Plan
- Part 4: Evaluation of Proposed Plan Change 1 to the Waste Plan
- Part 5: Planning context
- References

## 1.3. Requirements of section 32 of the RMA

ORC is required to prepare an evaluation report for the Plan Changes in accordance with section 32 of the RMA.[2] Section 32(1) sets out the requirements for an evaluation report, which are:

- Examining the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of the RMA;
- Examining whether the provisions in the proposal are the most appropriate way to achieve the objectives by –
  - identifying other reasonably practicable options for achieving the objectives; and
  - assessing the efficiency and effectiveness of the provisions in achieving the objectives; and
  - summarising the reasons for deciding on the provisions; and
- containing a level of detail that corresponds to the scale and significance of the environmental, economic, social and cultural effects that are anticipated from the implementation of the proposal.

Section 32(6) defines "objectives" as:

[2] Clause 5, Schedule 1 to the RMA

- for a proposal that contains or states objectives, those objectives; and
- for all other proposals, the purpose of the proposal.

Section 32(2) states that an examination of the appropriateness of the provisions must:

- identify and assess the benefits and costs of the environmental, economic, social and cultural effects anticipated from the implementation of the provisions, including the opportunities for:
  - Economic growth that are anticipated to be provided or reduced; and
  - Employment that are anticipated to be provided or reduced;
- if practicable, quantify the benefits and costs; and
- assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.

The evaluation report must also summarise any advice on the proposal received from iwi authorities, including the Council's response to that advice and any provisions that are intended to give effect to the advice.

## 1.4. Background

In October 2018, ORC approved the commencement of a full review of the Water Plan and approved a Progressive Implementation Programme (PIP), as provided for in the NPS-FM 2014 (as amended 2017). The PIP, which was publicly notified in December 2018, sets out the various actions and timeframes for implementing the NPS-FM. Together, these programmes of work are intended to fully revise and replace the current Regional Plans for Water and Waste. In order to support the full review of the Plans and strengthen the existing policy framework in the interim period, the Council approved the development of PC6AA, PC8 and PC1 in August 2019, including the topics considered within scope of PC8 and PC1 in particular.[3]

In 2019, a review of ORC's planning functions was commissioned by the Minister for the Environment and undertaken by his appointee, Honorary Professor Peter Skelton. After receiving Professor Skelton's report and recommendations, in November 2019 the Minister for the Environment made a number of recommendations to ORC on the future of its freshwater planning framework. These were accepted by ORC in late November and include agreement to:

- prepare a plan change, by 31 March 2020, that will provide an adequate interim planning and consenting framework to manage fresh water until new discharge and allocation limits are set in line with the NPSFM;
- review the existing regional policy statements and notify a new regional policy statement by November 2020; and
- notify a new regional plan for land and water resources in accordance with the requirements of the NPSFM by December 2023.

At the time of the Minister's recommendations, work on PC6AA and PC8 to the Water Plan and PC1 to the Waste Plan was already underway. PC6AA was notified in October 2019 and addresses immediate implementation issues with some of the discharge rules that were introduced in 2014 through Plan Change 6A (PC6A) which have since been determined to be ambiguous, unenforceable and uncertain. The focus of PC6AA is to extend the date from which those rules become operative from 1

[3] See Council Policy Committee meeting agenda for 14 August, available at https://www.orc.govt.nz/media/7107/policy-committee-agenda-20190814.pdf

April 2020 to 1 April 2026 to provide time for the longer-term planning processes to occur. Council made a final decision on PC6AA on 8 February 2020 and no appeals have yet been received.

An additional plan change, Proposed Plan Change 7 (Water Permits) to the Water Plan (PC7) was prepared by ORC to manage applications for replacement water permits and deemed permits until a fit for purpose planning framework is developed through the new LWRP. PC7 was notified on 18 March 2020 and works alongside PC8 and PC1 to ensure both water quantity and quality issues are addressed in the interim period before a new regional planning framework (RPS and regional plan) is in place.

## 1.5. The Plan Changes

While the PIP is implemented and the full review of the Plans undertaken, ORC will continue to implement the operative Water and Waste Plans.[4] It is important that these Plans still deliver an effective and efficient water management framework, and that implementation supports (and does not undermine) the full plan reviews and the objectives of the NPSFM. Accordingly, PC8 and PC1 target the most significant deficiencies within the Water and Waste Plans. The proposals in PC8 and PC1 are limited in scope due to the need to improve specific practices as soon as possible and to recognise that any changes introduced may have a limited lifespan, given the scheduled review of both Plans. This also recognises the current uncertainty about the Government's proposals for changes to the current freshwater management framework.

The provisions of PC6A were intended to provide a framework for managing the effects of rural land uses on water quality. This framework included discharge contaminant concentration thresholds (Schedule 16) beyond which discharges require consent and a maximum nitrogen leaching limit per property, calculated using Overseer. The intent of PC6AA is to delay the implementation of those provisions, which leaves a 'gap' in the Plan for managing discharges from rural land uses. PC8 introduces a range of new provisions and amendments to existing provisions to strengthen the Water Plan's management of these types of discharges, as follows:

- Improved minimum standards for animal waste systems and application of animal waste to land;
- Targeted minimum standards and good farming practices for high-risk practices (intensive grazing and stock access to waterbodies);
- Enabling the installation and maintenance of sediment traps as a permitted activity, subject to standards.

There are also a range of known issues with the current Water and Waste Plans, mostly informed by implementation of their provisions by ORC's Consents and Compliance staff. Part of the scope of PC8 and the entirety of PC1 is to address these issues by introducing practical, targeted solutions that can be easily incorporated into a new regional plan in the future. Those changes cover:

- strengthened and clarified policy direction for assessing resource consent applications for discharges of stormwater, wastewater and from rural land uses;
- strengthened provisions for managing sediment loss from earthworks for residential development;
- clarification of one policy relating to the establishment of regionally important infrastructure in wetlands

[4] As is required by section 84(1) of the RMA. Section 84(1) states that *"While a policy statement or a plan is operative, the regional council or territorial authority concerned, and every consent authority, shall observe and, to the extent of its authority, enforce the observance of the policy statement or plan."*

- improving controls on the use of dust suppressants, including prohibiting the use of waste oil as a dust suppressant; and
- strengthened policy direction for assessing resource consent applications for landfills.

PC8 and PC1 have been developed together and are intended to be progressed in combination to ensure an efficient Schedule 1 process.

# 2. Consultation

Due to the requirements following the Minister's recommendation for the Plan Changes to be developed and notified in a short timeframe and their narrow scope, consultation with key stakeholders and the community has been targeted. The consultation undertaken on particular topics is outlined below. In addition, staff from Aukaha have been involved in internal meetings and workshops on the development of the Plan Changes. Aukaha is a Rūnaka -based consultancy service with Governance from five Rūnaka owners: Te Rūnanga o Waihao, Te Rūnanga o Moeraki, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga.

### 2.1.1. Animal waste storage and application

Prior to the development of PC8, ORC staff had a number of informal discussions with members of the dairy industry regarding the need for greater direction on acceptable minimum standards for the storage and application of animal waste. DairyNZ in particular was supportive of a clearer management regime for Otago that would bring the region closer to storage and application practices in place elsewhere in the country. Table 1 below outlines the details of the consultation that occurred through 2019 and 2020.

*Table 1: Consultation on animal waste storage and application*

| Date | Participants | Description |
|---|---|---|
| 11 October 2019 | DairyNZ | Written advice received from DairyNZ regarding current issues with effluent storage and application and proposed minimum standards. |
| 25 October 2019 | DairyNZ<br>ORC | Meeting to discuss DairyNZ's proposed minimum standards. |
| 6 December 2019 | DairyNZ<br>Fonterra<br>Otago Dairy working groups<br>ORC | Meeting to discuss minimum standards for storage and application. |
| 21 January 2020 | Dairy NZ<br>Fonterra<br>Aukaha<br>Te Ao Marama<br>ORC | Meeting to discuss implementation and support available for farmers. |

### 2.1.2. Sediment from earthworks

A meeting was held on 21 November 2019 with staff from Otago Regional, Dunedin City, Central Otago District, Queenstown-Lakes District, Clutha District and Waitaki District councils. The focus of the meeting was to discuss the current issues with sediment management in Otago, clarify the various district council controls and discuss potential regulatory and non-regulatory solutions.

### 2.1.3. Nationally or regionally important infrastructure

In the course of processing consent applications for which Policy 10.4.2 is relevant, there have been differing views on whether the term "nationally or regionally important infrastructure" in the Water Plan is to be read as equivalent to the term "nationally and regionally significant infrastructure" in the PORPS 2019.

On 16 December 2019, ORC sent an email to the Department of Conservation, Forest and Bird and Aukaha seeking feedback on two options for resolving the issues with the reference to nationally and regionally important infrastructure in Policy 10.4.2: aligning the definition with the PORPS 2016 or retaining the status quo until there is clarity over the Government's proposed NESFW (which contains a definition of the term "nationally significant infrastructure" as well as a suite of provisions for managing wetlands which include reference to that term). Feedback was received from Aukaha which supported the proposal to align the definition with the PORPS 2019.

### 2.1.4. Discharge policies

On 23 January 2020, ORC staff had an informal discussion with staff from the Dunedin City Council's Three Waters Department regarding the proposed changes to the policies for managing stormwater and wastewater discharges and landfills.

## 2.2. Pre-notification consultation: Clause 34, Schedule 1

Where a plan or plan change intends to incorporate material by reference, Clause 34(2) of Schedule 1 to the RMA requires ORC to publicly notify that the material is to be incorporated, make copies of the material available for public inspection and allow a reasonable opportunity for people to comment on the proposal.

Public notice was provided on 14 February 2020 and comments were received until 28 February 2020. Two submissions were received within the submission period (from Fulton Hogan and Louise Croot) and one was received late on 4 March 2020 (the Oil Companies). The feedback received and ORC's response is included in Table 2 below.

*Table 2: Summary of feedback from clause 34(2) consultation*

| Respondent | Summary of feedback | ORC response to feedback |
|---|---|---|
| Fulton Hogan | Section F of the Sediment and Erosion Control Guidelines contains a degree of prescription about current market brands and specifications. Suggest ORC ensures there is provision for alternatives in order to future-proof the application of the document. | No changes recommended. Compliance with the Guidelines is a matter of discretion under restricted discretionary Rule 14.5.2.1 which allows for case-by-case assessments to be made through resource consent applications. |
| | The waste acceptance criteria and site classification guidance in the Technical Guidelines for Disposal to Land is under review by the Ministry for the Environment. | Note that there may be an issue with parts of the Technical Guidelines. ORC considers it would be useful to hear more widely from the public through submissions before recommending any changes. |
| | Questions how the construction sector will be engaged if these documents are to be used. | ORC will develop material to support implementation of the Plan Changes, including factsheets and guidance, and revised applications forms and consent conditions where relevant. |
| Louise Croot | Comments on the effectiveness of the Waste Plan generally. | Note. The Waste Plan will be reviewed and incorporated into the LWRP. |
| | Support for incorporating the Technical Guidelines for Disposal to Land by reference. | Note. |

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| | Some of the language in the Technical Guidelines for Disposal to Land is euphemistic. | Note that some of the language is lacking direction, however this is still considered an improvement on the current Plan provisions. |
| | Mapping of waste disposal sites with location, dates and monitoring is crucial for future planning. Closed landfills need more monitoring. | Note. ORC is aware of the locations of existing landfills due to the requirement for them to have resource consent. Only new landfills are within scope of PC1 and these will also require resource consent so mapping is not required. Closed landfills are not within the scope of PC1. |
| Oil Companies | Do not support incorporating of the Technical Guidelines for Disposal to Land. Emphasise that they have not been endorsed by MfE. | Note. |
| | Particular issues with Chapter 6 (Waste Acceptance and Monitoring) and associated appendices (C, D, E, F, G, H). Hydrocarbon restrictions are unjustified and unduly conservative. | Note that there may be an issue with parts of the Technical Guidelines. ORC considers it would be useful to hear more widely from the public through submissions before recommending any changes. |

## 2.3. Pre-notification consultation: Clause 3, Schedule 1

Clause 3(1) of Schedule 1 to the RMA requires ORC to consult certain parties during the preparation of a proposed plan, prior to the plan or plan change being notified. Clause 3B clarifies how the consultation with iwi authorities under clause 3(1)(d) is required to be undertaken. In accordance with these clauses, a draft copy of the Plan Changes was provided to the following parties for comment on 17 February 2020:

- Minister for the Environment
- Ministry for the Environment
- Minister of Conservation
- Department of Conservation
- Minister for Primary Industries
- Minister for Agriculture
- Central Otago District Council
- Clutha District Council
- Dunedin City Council
- Queenstown-Lakes District Council
- Waitaki District Council
- Southland Regional Council
- Canterbury Regional Council
- Aukaha, Te Ao Marama Inc, and Te Rūnanga o Ngāi Tahu as iwi authorities

Two responses to the Clause 3 consultation was received, from Aukaha (on behalf of Te Rūnanga o Waihao, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga). The key points and ORC's response are summarised in Table 3 below.

*Table 3: Summary of feedback from clause 3(1) consultation*

| Respondent | Summary of feedback | ORC response to feedback |
|---|---|---|
| **Plan Change 8 to the Water Plan** | | |

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| Aukaha on behalf of:<br>Te Rūnanga o Waihao<br>Kāti Huirapa Rūnaka ki Puketeraki<br>Te Rūnanga o Ōtākou<br>Hokonui Rūnanga (Ngā Rūnanga) | Overall plan changes appear to be sound and generally in accordance with Nga Rūnanga kaupapa. Supportive of stronger policy direction and better environmental outcomes sought through this plan change and believe this is a good starting point. | Note support. |
| | Policy 7.C.12(c) – Any discharge of human sewage or water containing sewage is highly offensive to mana whenua and will have significant adverse effects on cultural values. | No changes recommended. Discharges of human sewage are either permitted or discretionary under the rules in section 12.A. Reassessing those rules is not within the scope of PC8, therefore stronger direction in Policy 7.C.12 would conflict with the rule framework. Wider issue will be reconsidered for full plan review. |
| | Policies in 7.D – Request consistent wording throughout section 7.D: "Kāi Tahu cultural and spiritual beliefs, values and uses." | Proposed wording adopted for policies 7.D.5 – 7.D.10, which are the only policies in scope of PC8. |
| | Policy 7.D.5(f) – Prefer "significant adverse effects are avoided." | No changes recommended. This would require reassessment of the rules in section 12.C which is outside the scope of PC8. |
| | Policy 7.D.7(d) – Support consenting of effluent systems, note that waterway contamination adversely affects the mauri of the water and mahika kai. | Note. |
| | Policy 7.D.9(a) and (e) – Prefer "require" to "promote". | Note. Sub-clauses are intended to encourage changes in practice and signal ORC's future policy direction. |
| | Rule 12.C.0.4 – Include "to land in a manner which may result in ponding or overland flow to water". | Accept, amendments made. |
| | Rule 12.C.2.5 – Include Kāi Tahu values. | No changes recommended, Kāi Tahu values provided for in (v). |
| | Rule 13.5.1.8A(b) – Support stock exclusion, consider all stock should be excluded eventually. | Note. Proposed Policy 7.D.9(b)(i) indicates ORC's long-term objective to exclude stock from water bodies. |
| | Rule 13.5.1.8A(b) – All wetlands are culturally significant and should be undisturbed, not modified and protected. | No changes recommended. Current Rule only manages access to Regionally Significant Wetlands, proposed amendments continue this approach. Management of wetlands will be reviewed in detail through the Plan Review. |
| | Rule 13.5.1.8A(b) – Clarify whether "dairy cattle" includes milking cows, calves, heifers, replacement cows and non-milking cattle. | Accept, definition of "dairy cattle" included. |
| | Rule 13.5.1.10 – Clarify whether work can occur only if the bed is not wet during construction. | Accept, amendments made to 13.5.1.10(c). |
| | Rule 13.5.1.10 – Query degree of enabling of sediment traps, best practice to stop sediment entering waterways in the first place. | No changes recommended. Proposals for managing stock access to water, intensive grazing and earthworks will assist with improving sediment management at source. |
| | Rule 14.5.1.1 – Suggest adding water quality guidelines or more stringent land use controls to reduce effects of overland flow and run off. | Accept, additional condition included. |
| | Rules 14.7.1.1 and 14.7.2.1 – Recommend requiring leak detection system to be designed | No changes recommended. Requiring a secondary containment system to underlie |

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| | to capture leachate from under the entire storage pond. | the entire pond would be effective, however it is beyond what is currently considered good practice. Requiring systems to be fully lined or concrete provides an effective safeguard against leakage in the first instance. |
| | Rule 14.7.2.1 – Include Kāi Tahu values as a matter of control. | Accept, additional matter of control included. |
| | Schedule 19 – Typographical errors and repetition. | Accept, amended. |
| | Schedule 19A – Include an example to assist implementation, clarify that the number of times cows are milked in peak season is the maximum number per day. Suggest using a different symbol to denote a footnote. | Accept, amended. |
| | Schedule 19B – Include an example to assist implementation. | Accept, amended to include example. |
| | Definition of sacrifice paddock – Not used in Plan, could delete. | Accept, definition deleted. |
| Department of Conservation | Generally support plan changes. | Note. |
| | Policies 7.C.12, 7.D.7, 7.D.10; Rules 13.5.1.10, 14.6.1, 14.7 – Support | Note. |
| | Policy 7.C.6 – Support but note there is a risk that this policy will be seen as justification for sewage leaks and overflows continuing while upgrades are still in progress. | Note. Communication about the intent and short-term nature of these plan changes will be important during implementation. |
| | Policy 7.C.6(a) – Reword to prevent sewage entering the system. | Accept, amendments made. |
| | Policy 7.C.6(b) – Amend to "requiring" rather than "promoting". | No changes recommended. Clause (b) relates to the quality of the water discharged. Ahead of freshwater objectives and limits being set, it would be difficult to "require" upgrades in quality because there are no supporting objectives to identify the level of improvement required, limits to implement those objectives, or timeframes for making those improvements. This work will occur through the new LWRP. |
| | Policy 7.D.7(b)(i) – Should cover groundwater as well as surface water. | Accept, amended. |
| | Policy 7.D.8 – Clarify what performance standards are. | Accept, amended. |
| | Policy 7.D.9 – Support, not clear how ORC will implement the requirement to promote identification and management of critical source areas. | Note. This policy is intended to outline ORC's longer-term intent for managing farming activities. Some of the actions will be supported through non-regulatory methods at this stage |
| | Rule 12.C.0.4 – Include restrictions on ponding, overland flow and application to frozen land. | Accept, amended. |
| | Rule 12.C.1.4 – Concern that conditions do not align with prohibited activity conditions in Rule 12.C.0.4. | Accept, delete clauses (c) and (d) which are already conditions of the prohibited activity rule (12.C.0.4). |

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| | Rule 13.5.1.8A(b) – Support but include beef cattle, deer and pigs. | No changes recommended. Pigs are already included. Beef cattle are not farmed as intensively as dairy cattle and excluding deer comes with more significant costs than other types of stock. |
| | Rules 14.5.1.1, 14.5.2.1 – Support, strongly encourage ORC to work with territorial authorities to ensure a consistent approach to managing earthworks. Sediment from non-residential development can also have significant adverse effects. | Note. ORC recognises the need to work collaboratively with territorial authorities. Sediment management more broadly will be reviewed through the preparation of the new LWRP. |
| **Plan Change 1 to the Waste Plan** | | |
| Aukaha on behalf of:<br>Te Rūnanga o Waihao<br>Kāti Huirapa Rūnaka ki Puketeraki<br>Te Rūnanga o Ōtākou<br>Hokonui Rūnanga (Ngā Rūnanga) | Rule 6.6.2 – Suggest adding a permitted activity criteria stating that the oil will not reach waterways, including drains etc. which are connected to waterways, or that the discharge will not occur within XX metres of water. | No changes recommended. Rule 6.6.2 does not provide for use of oil, only non-hazardous or approved substances. The general prohibited activity rule for discharges in the Water Plan (Rule 12.C.0.1) also applies and would allow enforcement action to be taken if discharges are causing the types of adverse effects listed in the rule. |
| Department of Conservation | Policy 6.4.10 – Support, note waste oil has been used in areas outside Central Otago. | Accept, deleted "Central" from explanation. |
| | Rules 6.6.2, 6.6.3 – Better located in Water Plan. | No changes recommended. Ultimately these plans will be combined into a new LWRP. |
| | 7.4.11 – Support the use of Technical Guidelines. | Note. |

## 2.4. Pre-notification consultation: Clause 4A, Schedule 1

Clause 4A of Schedule 1 to the RMA requires that, prior to notifying a proposed plan or plan change, ORC must provide a copy of the draft plan change to the iwi authorities previously consulted under Clause 3(1)(d) and have particular regard to any advice received from those iwi authorities. Adequate time and opportunity must be allowed for iwi authorities to consider the draft and provide advice.

Additionally, section 32(4A) of the RMA requires an evaluation report prepared under section 32 to summarise all advice concerning the proposal received from iwi authorities under the relevant provisions of Schedule 1 and summarise the response to the advice, including any provisions of the proposal that are intended to give effect to the advice.

The summary of advice from iwi authorities and ORC's response to that advice is set out in Table 4 below.

*Table 4: Response to advice from iwi authorities*

| Respondent | Summary of feedback | ORC response to feedback |
|---|---|---|
| **Plan Change 8 to the Water Plan** | | |
| Aukaha on behalf of: | Appreciate the changes made throughout drafting to the proposed plan changes as | Note. |

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| Te Rūnanga o Waihao<br>Kāti Huirapa Rūnaka ki Puketeraki<br>Te Rūnanga o Ōtākou<br>Hokonui Rūnanga (Ngā Rūnanga) | these have made the provisions clearer and addressed some of the concerns raised. | |
| | Rules 14.7.1.1 and 14.7.2.1 – Recommend requiring leak detection system to be designed to capture leachate from under the entire storage pond. Suggestion two options:<br>1. Rule 14.7.2.1 remains a controlled activity, however, provision (b) is strengthened by requiring a leak detection system that captures leaks from under the entire pond. An example of how the provision could be re-worded is below:<br>(b) (i) fully lined with an impermeable synthetic liner and has a leak detection system <u>capturing</u> ~~underlying~~ the <u>entire</u> storage pond… ; or<br>2. Rule 14.7.2.1 for new effluent storage ponds is moved from being a controlled activity to a restricted discretionary activity with risks of pond leakage being a matter of discretion. This would allow new pond construction to evolve with Good Management Practice but also ensure that they are built at least to current Good Management Practice. | Requiring a secondary containment system to underlie the entire pond would be effective, however it is beyond what is currently considered good practice. Requiring systems to be fully lined or concrete provides an effective safeguard against leakage in the first instance.<br>Accept that leak detection systems need to be appropriate, recommend amending Rule 14.7.2.1(b)(i) to require new ponds to have an effective leak detection system that underlies the storage pond. |
| **Plan Change 1 to the Waste Plan** | | |
| Aukaha on behalf of:<br>Te Rūnanga o Waihao<br>Kāti Huirapa Rūnaka ki Puketeraki<br>Te Rūnanga o Ōtākou<br>Hokonui Rūnanga (Ngā Rūnanga) | Rule 6.6.2 – Still consider additional conditions are required to prevent dust suppressants from entering water, either by including a setback for application or controls on application or other methods. | Accept in part, amended to include conditions regarding water quality. |

# 3. Proposed Plan Change 8 to the Water Plan

## 3.1. Introduction

This section of the report evaluates the provisions of PC8 in accordance with the requirements of section 32 of the RMA as set out in section 1.3 of this report. ORC is required to examine the extent to which the objectives of the proposal are the most appropriate way to achieve the purpose of the RMA. It is also required to examine whether the provisions in the proposal are the most appropriate way to achieve the objectives. For changes to existing plans, this examination must relate to the provisions and objectives of the amending proposal, and the objectives of the existing proposal (i.e. the operative plan). For each topic assessed in this section, the relevant objectives from the Water Plan and the objective(s) of the proposed amendments are identified.

## 3.2. Overview of Proposed Plan Change 8

The overall purpose of PC8 is to strengthen the management of particular activities in order to, at a minimum, maintain water quality in Otago. It does this by strengthening the policy direction provided to decision-makers on resource consent applications for a range of discharges (including from stormwater and wastewater systems, and farming activities) and introducing new or amended provisions for managing particular activities with discharges that are known to have adverse effects on water quality (animal waste storage and application, intensive grazing, stock access to water, and earthworks). It also seeks to incentivise the use of sediment traps as a method for reducing sedimentation in water bodies and makes a minor clarification to one policy on infrastructure provisions within wetlands.

## 3.3. Development of Proposed Plan Change 8

Section 1.4 provides the wider context for the development of PC8. In summary, PC8 has been developed to make targeted improvements to the Water Plan until the new LWRP is notified in 2023. PC8 focuses on addressing known deficiencies within the operative Water Plan, particularly those which manage various types of discharges. Many of these deficiencies relate to the management of water quality and have been identified for some time. These were intended to be addressed primarily through PC6A which, as previously outlined, has not delivered the outcomes sought.

As described in section 2, targeted consultation has occurred with some stakeholders. This consultation, as well as the developments in national policy and through the section 24 investigation, led to discussions about alternative options for some topics. Where that occurred, the section in this chapter containing the relevant evaluation also describes discounted options.

### 3.3.1. Previous plan changes

In 2012, ORC identified that water quality was deteriorating in some parts of Otago, indicating that the provisions in the Water Plan were not proving effective at maintaining water quality.[5] In addition, the NPSFM came into force in 2011 and had not been given effect in the Water Plan. ORC initiated PC6A to address these issues. That plan change sought to manage rural discharges to water through an effects-based framework, focusing on controlling contaminants discharging from land to water instead of controlling land use activities and nutrient inputs. This was intended to provide farmers with flexibility

[5] Section 32 Report – Consideration of alternative, benefits and costs: Proposed Plan Change 6A (Water Quality), 31 March 2012.

to determine the on-farm practices necessary to meet specified discharge limits. The rules for nutrient leaching and contamination concentration limits were to come into effect on 1 April 2020.

As that date approached, it became apparent that the provisions of PC6A were ambiguous, unenforceable and uncertain. The result is that activities may be permitted or require resource consent depending on the day-to-day circumstances on the property.

In response to these issues, ORC prepared PC6AA to delay the implementation of the provisions until 1 April 2026. This will have the effect of permanently preventing their implementation given that a new regional plan for water and land is intended to be notified in 2023. ORC made its final decision on PC6AA on 8 February 2020 and the appeal period is currently open. If no appeals are lodged, PC6AA will be able to be made operative under Clause 20, Schedule 1.

### 3.3.2. Scope of PC8

The scope of PC8 was originally approved by ORC in August 2019.[6] That paper outlined the issues identified with the Water Plan and recommended the development of a plan change addressing:

- Gaps in the current discharge rule framework, for the adoption of good farm management practices in Otago.
- Stock effluent management.
- Sediment control from earthwork activities.
- Discharge policy framework, including for discharges of wastewater-contaminated stormwater, or discharges from municipal wastewater treatment plants.
- Permission to install and maintain sediment traps.
- Stock access to water bodies.
- Uncertainty about the meaning of the term "regionally important infrastructure"
- Permission to discharge waste oil on road as dust suppressants.
- Overlaps between the Water Plan and the Waste Plan.

Shortly afterwards, in September 2019, the Government announced its *Action for healthy waterways* discussion document, a draft NPSFM and a proposed NESFW. Furthermore, the investigation into Otago's planning functions was provided to the Minister for the Environment in October 2019 and in November 2019 the Minister made a raft of recommendations to ORC, in particular to bring forward the notification date of the new regional plan for water and land from 2025 to 2023. The consequence of these developments was to revise the scope of PC8, recognising that some of the original topics were now proposed to be managed through national direction and the lifespan of the plan change was shortened from five years to three.

A brief explanation of the changes to the original topics is provided below in Table 5.

*Table 5: Revised scope of PC8*

| Topic | Change in scope | New topic |
|---|---|---|
| **Good farm management practices** | Potential for significant inconsistency with Government proposals, creating uncertainty and potentially unnecessary costs for farmers. Proposal to outline ORC's long-term strategy for managing farming activities and introduce minimum standards for intensive grazing and | Good farming practices:<br>• Intensive grazing<br>• Stock access to water bodies |

[6] *Plan changes for water quality*. Agenda item prepared for ORC Policy Committee, 14 August 2019.

| | | |
|---|---|---|
| | stock access to water and incentivise installation of sediment traps. | • Sediment traps |
| **Stock effluent management** | No change. | As per original |
| **Sediment control from earthworks activities** | No change. | As per original |
| **Discharge policy framework** | No change. | As per original |
| **Sediment traps** | No change. | Part of 'Good farming practices' |
| **Stock access to water bodies** | Potential for inconsistency with Government proposals. Focus revised to introducing a basic stock exclusion regime that would provide an interim step towards the type of comprehensive exclusion envisaged by Government regulation. | |
| **Regionally important infrastructure** | No change. | As per original |
| **Waste oil** | No change. | As per original |
| **Overlaps between Water/Waste Plans** | Preliminary assessments indicated that the overlaps between the Plans were a result of their underlying principles, which could not be resolved through a plan change. Resolving overlaps will occur through the review of both Plans. | Replaced with 'Landfills'. |

In addition to the topics above, ORC became aware that Dunedin City Council was preparing a resource consent application for a new landfill at Smooth Hill. Staff identified that the provisions in the Waste Plan for landfills were more than 20 years old and out of step with current best practice. Given the long-term nature of landfills, it was considered important to address the issues with the Waste Plan to assist with decision-making on any consent application lodged before the new LWRP is notified.

## 3.4. Evaluation of Proposed Plan Change 8

For the purposes of this evaluation, the provisions in PC8 are grouped by topic as follows:

- Discharge policies
- Animal waste storage and application
- Good farming practices (including intensive grazing, stock access to water and sediment traps)
- Sediment from earthworks
- Nationally or regionally important infrastructure

### 3.4.1. Discharge policies

#### 3.4.1.1. Introduction

This section of the report assesses the provisions proposed in PC8 to strengthen the policy direction in the Water Plan for discharges of stormwater and wastewater and provide clearer direction to decision-makers on resource consent applications for discharges resulting from rural land uses under the existing rule framework. The general policies in section 7.B apply to all discharges, but the policies in sections

7.C and 7.D apply to specific types of discharges only. The policies in section 7.C have not been subject to review or amendment in recent years and are not considered to be sufficient to achieve the objectives of the Plan. The policies in section 7.D were introduced in 2014 through PC6A. They are not considered to provide clear direction to decision-makers on resource consent applications made under the corresponding rules on the matters to consider in decision-making or appropriate consent duration.

The relevant provisions are:

- Amendments to Policy 7.C.5
- Amendments to Policy 7.C.6
- New Policy 7.C.12
- Amendments to Policy 7.D.5
- New Policy 7.D.6

#### 3.4.1.2. Objectives

Section 32 requires an evaluation report to examine the extent to which the proposed provisions are the most appropriate way of achieving the objectives of the proposal. The most relevant objectives in the Water Plan are:

- **7.A.1:** To maintain water quality in Otago lakes, rivers, wetlands, and groundwater, but enhance water quality where it is degraded.
- **7.A.2:** To enable the discharge of water of contaminants to water or land, in a way that maintains water quality and supports natural and human use values, including Kāi Tahu values.
- **7.A.3:** To have individuals and communities manage their discharges to reduce adverse effects, including cumulative effects, on water quality.

The objective of the discharge policies proposal is to clarify and strengthen the policy direction in the Water Plan for discharges of stormwater and wastewater and from rural land uses.

#### 3.4.1.3. Current issues

Sections 7.B, 7.C and 7.D of the Water Plan contain the policies for water quality that are used to guide decision-making when assessing resource consent applications. They apply differently depending on the activity, as follows:

- **Section 7.B** applies to all discharges and includes direction on effects to consider as well as guidance on consent decision-making. These policies were introduced through Plan Change 6A and were intended to provide a consistent and transparent policy framework applying to rural and urban discharges.[7]
- **Section 7.C** applies only to discharges of human sewage, hazardous substances, hazardous wastes, specified contaminants and stormwater, and discharges from industrial or trade premises and consented dams. There are specific rules to which each policy applies. Aside from one deletion, these policies were not addressed through Plan Change 6A as the intent was to review them separately through another plan change.
- **Section 7.D** applies only to discharges of water and contaminants excluding those provided for in section 7.C, generally referred to as rural discharges. These policies were introduced through

[7] Decisions of Council on Proposed Plan Change 6A: Water Quality (20 April 2013)

Plan Change 6A and were intended to address particular matters relevant to these types of discharges.

Implementation of these policies has identified that they do not provide adequate direction for the consenting of the following discharges:

- Discharges of stormwater that contain sewage
- Discharges of wastewater
- Rural discharges requiring resource consent under Rule 12.C.3.2

The Water Plan permits stormwater discharges except where they contain sewage. A review of these provisions has identified that the policies under which consent applications are assessed do not adequately address cross-contamination from wastewater, particularly from existing systems (ORC, 2018a). While these policies encourage improvements, there is not a strong mandate for requiring improvements to the types of cross-connection issues which lead to contamination of stormwater by sewage. These issues can make it difficult for resource consent decisions to effectively assist with achieving the objectives of the Water Plan.

ORC has identified that currently only 16% of municipally treated wastewater is discharged to land and that most of Otago's wastewater is discharged to water. Discharges to water and the coastal marine area impact on the mauri and associated cultural values of water bodies and are considered highly offensive to Kāi Tahu (ORC, 2018b). There are currently no policies in the Water Plan relating specifically to discharges of wastewater, nor does the Water Plan encourage a shift towards discharges to land. The absence of policy guidance affects the ability of resource consent decisions to assist with achieving the objectives of the Water Plan and fails to recognise Kāi Tahu values.

The policies for managing rural discharges in the operative Water Plan are focused primarily on directing the content of the resulting rules. The rules apply different activity statuses and consent duration for different activities, but there is little guidance within the policies to assist with decision-making on consent applications. This issue was noted in the decision on PC6AA, which states that "the discharge policies in the Water Plan are vague and do not provide much guidance over when such consent should be granted and under what conditions."[8] ORC Consents staff have begun to receive applications for long-term discharge permits under Rule 12.C.3.2 and consider that additional policy guidance would assist in making decisions on these consent applications, including on duration.

#### 3.4.1.4. Reasonably practicable options

Two reasonably practicable options were identified to achieve the objectives of the Water Plan and of the proposal itself:

- Option 1: Status quo
- Option 2: PC8

Option 1: Status quo

The status quo and associated issues are outlined in section 3.4.1.3. As outlined in that section, the status quo is not considered to be effective at achieving the objectives of the Water Plan.

[8] Decision of Council on Proposed Plan Change 6AA to the Regional Plan: Water for Otago, 8 February 2020, p.11.

Option 2: PC8

This option introduces amendments to existing policies for discharges of stormwater and from rural land uses, and new policies for wastewater and discharges from rural land uses. Broadly, this option:

- strengthens the expectations regarding reductions in sewage overflows into stormwater systems;
- encourages the progressive upgrade of stormwater reticulation systems in order to improve the quality of discharges;
- requires reducing adverse effects from wastewater discharges by requiring the design and ongoing operation of wastewater systems to be in accordance with recognised industry standards and outlines a preference for wastewater discharges to land over discharges to water; and
- clarifies the intent of existing policies relating to decision-making on applications for rural discharges, including matters for decision-makers to consider when assessing applications under Rule 12.C.3.2.

Option 2 is the preferred option and is assessed in more detail below. It is apparent that the status quo is not adequate and that improvements are needed to the policies so that they better assist with achieving the objectives of the Water Plan and with decision-making on resource consent applications.

#### 3.4.1.5. Efficiency and effectiveness evaluation

Table 6 below identifies and assesses the benefits and costs of the environmental, economic, social and cultural effects that are anticipated from the implementation of the changes proposed under Option 2 above.

*Table 6: Benefits and costs for discharge policies*

| BENEFITS | COSTS |
|---|---|
| **Environmental** | |
| ▪ Provides clear signal for infrastructure providers over what action should be prioritised to reduce environmental effects:<br>o Progressive reduction in sewage overflows to stormwater networks.<br>o Encouraging a progressive improvement in the quality of discharges from stormwater systems.<br>o Progressive improvements in the design and operation of wastewater systems in order to reduce the adverse effects of discharges.<br>o Outlining a preference for discharges of wastewater to land over discharges to water.<br>▪ Incentivises discharges to land while still allowing consents to take into account the specific circumstances of the discharge. | ▪ Given the timeframes associated with infrastructure upgrades, there may continue to be negative impacts on the environment until infrastructure is upgraded in line with the policy direction. |
| **Economic** | |
| ▪ Clearer direction regarding expectations for discharge permits, both for applicants and ORC staff, will assist with reducing the costs of the consenting process.<br>▪ Clearer direction on consent duration for rural discharges will assist with managing the transition from the current Water Plan to the new LWRP by clarifying the term and nature of the investments made now. | ▪ There will be costs to territorial authorities in progressively reducing sewage overflows and upgrading wastewater systems. These may be significant but are not timebound, allowing costs to be spread over time. These costs have not been quantified and will depend on the individual circumstances of each system.<br>▪ There will be costs to farmers (and potentially others) from improving practices to justify the |

| | |
|---|---|
| ▪ Upgrades to infrastructure may benefit the economy, including through employment opportunities, although this is expected to be limited. | granting of a longer-term consent for rural discharges. |
| **Social** | |
| ▪ Reduction in adverse effects on human health from reductions in sewage overflows.<br>▪ Improved water quality supports recreational pursuits such as fishing. | ▪ Increased costs to territorial authorities are likely to require reprioritisation of future spending, which may affect the delivery of other services provided to communities by territorial authorities. |
| **Cultural** | |
| ▪ Better recognition of Kāi Tahu values, in particular by acknowledging that discharges of wastewater to water are considered offensive and may have significant adverse effects on those values.<br>▪ Improved water quality will better support Kāi Tahu values and uses of fresh water, particularly mahika kai.<br>▪ Policy direction that is better aligned with Kāi Tahu values may reduce the level of involvement of Kāi Tahu advisors at the individual consent stage. | ▪ The policies do not prevent culturally offensive discharges of wastewater to water. |

Table 7 below assesses the effectiveness and efficiency of the proposed amendments in achieving the objectives of the proposal.

*Table 7: Efficiency and effectiveness evaluation for discharge policies*

| | |
|---|---|
| **Efficiency** | This option assists with achieving the relevant objectives of the Water Plan while providing for a more efficient consenting process. Improvements to practice required or encouraged by the policies will increase costs for users, but clearer policy guidance may reduce the costs of consenting by reducing debate about ORC's expectations. This is considered to be an appropriate balance given the short-term nature of PC8. Restricting the duration of consents granted for rural discharges will assist with managing the transition to a new regional plan that is compliant with the NPSFM (i.e. includes freshwater objectives and limits). |
| **Effectiveness** | This option provides a clearer pathway towards achieving the objectives of the Water Plan to maintain water quality or improve it where it is degraded. In line with Objective 7.A.3, it focuses on requiring those responsible for managing their discharges to reduce adverse effects on water quality. Stormwater and wastewater discharges can reduce water quality at the point of discharge and contribute to overall reductions in water quality downstream of the discharge. However, these systems perform an important and valuable service to communities so any requirement to upgrade systems and the quality of discharges must occur at a rate that is sustainable for those communities to fund.<br><br>There are likely to be considerable costs associated with progressively upgrading stormwater and wastewater infrastructure, however it is not clear what proportion of those costs will be borne within the lifetime of the current Plan. As drafted, the policies provide flexibility for discussions around the speed of those upgrades which will assist with spreading the cost over an acceptable time period. Costs will be borne by those managing the discharges (territorial authorities) but the benefits will be experienced by the communities they represent.<br><br>This option will improve the implementation of the provisions managing rural discharges by setting out the matters to be considered by decision-makers but does not address the larger problem with the implementation of the corresponding rules.<br><br>For all policies in this option, PC8 represents an improvement on the status quo but not a full solution to the issues identified with the Water Plan. |

#### 3.4.1.6. Risk of acting or not acting

Section 32(2)(c) of the RMA requires ORC to take into account the risk of acting or not acting if there is uncertain or insufficient information. ORC does not hold comprehensive information about the state of Otago's existing stormwater or wastewater systems, meaning it is not known how many overflows exist presently or what kind of upgrades might be required to these systems as a result of the strengthened policy direction. There are 24 current consents for discharges of stormwater that contain wastewater, however only four expire before 2025 and are therefore likely to be directly impacted by PC8. The remainder expire between 2029 and 2053 and will be decided under the new LWRP which may carry through the direction contained in PC8.

Given the changes in PC8 will be implemented progressively as consents come up for renewal, or new consents are applied for, these costs are likely to be spread over time with the majority being incurred beyond the lifetime of the current Plan. In order to meet the objectives of the NPSFM, it is likely that improvements to the quality of these discharges will be required in the future anyway.

There is uncertainty about how many consent applications are likely to be lodged for rural discharges under Rule 12.C.3.2. As at 16 Mach 2020, 19 applications had been received by ORC under this rule and 18 granted with expiry dates ranging between 2023 and 2053. ORC staff consider that applications will continue to be lodged in the coming years. The amendments in PC8 to the relevant policies will assist ORC staff in making decisions on these types of applications until the new LWRP is notified.

Despite these information gaps and uncertainties, it is considered that the risk of not acting is greater than the risk of acting due to the need to strengthen the Water Plan in the interim period before the new LWRP is notified.

#### 3.4.1.7. Conclusion

Strengthening the minimum standards for stormwater and wastewater systems will assist with reducing the adverse effects associated with these discharges. Clarifying the intent of the policies for rural discharges will improve implementation of the existing rule framework by providing clarity to decision-makers on how to assess applications received under those rules. Better decision-making on all of these types of resource consents will assist in achieving the objectives of the Water Plan as well as the higher order documents. This is consistent with the general intent of the NPSFM, RPS 1998, PORPS 2019 and PORPS 2016 to maintain water quality, or enhance water quality where it is degraded.

The cost-benefit and efficiency and effectiveness assessments above have shown that the proposed amendments in Option 2 are more efficient than the status quo and are more effective at achieving the objectives of the Water Plan and the proposal. This will, in turn, better achieve the outcomes sought by the NPSFM, RPS 1998, PORPS 2016 and PORPS 2019, as well as the purpose of the RMA. The costs, while potentially significant in some cases, are considered to be appropriate in relation to the contribution of those discharges to water quality generally. Additionally, there is flexibility for improvements to occur at a rate that is financially sustainable for communities. Amending the policies for rural discharges will improve the implementation of the current rules, however as those rules have been found to be ambiguous, unenforceable and uncertain PC8 will not entirely resolve the current issues with the Water Plan for managing rural discharges.

### 3.4.2. Animal waste storage and application

#### 3.4.2.1. Introduction

The Water Plan defines animal waste as "faeces or urine from any animal" and animal waste systems as including "collection, storage, treatment, disposal or application of liquid or solid animal waste". From an RMA perspective, there are typically two parts to managing animal waste: the requirements for the collection and storage of waste and the requirements for the discharge or application of waste to land. Both elements are included in the Plan's definition of "animal waste system".

The Plan currently does not manage the storage component but contains permitted and prohibited activity rules for the discharge. PC8 proposes to introduce new policies establishing minimum standards for management and operation of animal waste systems, as well as four land use rules for the storage of animal waste, three discharge rules for the application of animal waste and amendments to the existing prohibited activity rule for discharges. Two new schedules support the application of the new rules. PC8 also proposes a consequential amendment to one existing rule.

The relevant provisions are:

- New Policy 7.D.7
- New Policy 7.D.8
- Amendments to Rule 12.C.0.2 (discharge – prohibited)
- New Rule 12.C.0.4 (discharge – prohibited)
- New Rule 12.C.1.4 (discharge – short term permitted)
- New Rule 12.C.2.5 (discharge – restricted discretionary)
- New Rule 14.7.1.1 (land use – permitted)
- New Rule 14.7.1.2 (land use – short term permitted)
- New Rule 14.7.2.1 (land use – controlled)
- New Rule 14.7.3.1 (land use – discretionary)
- New Schedule 18 (pond drop test requirements)
- New Schedule 19 (staged implementation)
- New definition – Dairy Effluent Storage Calculator
- New definition – Suitably Qualified Person
- Amended definition – Animal waste system
- Deleted definition – agricultural waste

#### 3.4.2.2. Objectives

Section 32 requires an evaluation report to examine the extent to which the proposed provisions are the most appropriate way of achieving the objectives of the proposal. The most relevant objectives in the Water Plan are:

- **7.A.1:** To maintain water quality in Otago lakes, rivers, wetlands, and groundwater, but enhance water quality where it is degraded.
- **7.A.2:** To enable the discharge of water or contaminants to water or land, in a way that maintains water quality and supports natural and human use values, including Kāi Tahu values.
- **7.A.3:** To have individuals and communities manage their discharges to reduce adverse effects, including cumulative effects, on water quality.

The objective of this proposal is to improve the management and operation of animal waste systems (including both storage and application to land) so that they are consistent with good practice.

#### 3.4.2.3. Current issues

Dairy sheds and some other intensive farming operations remove liquid animal waste from stock holding areas and wash down these facilities to meet health and hygiene requirements for the animals and animal products. Animal waste collected from these systems includes animal urine, faeces and water, and varies in volume and composition depending on the individual situation. Animal waste is sometimes also collected from laneways, feed pads, wintering pads, silage stacks and stock underpasses.

Generally, collected animal waste is stored in a temporary containment facility (commonly referred to as an effluent pond or effluent tank) and then applied to pasture as a form of fertiliser, often through some kind of irrigation system and 'muck spreaders'. The length of time the animal waste is stored depends on the physical capacity of the facility as well as the suitability of soil conditions for applying the animal waste to land. Animal waste is a valuable fertiliser source – DairyNZ estimates that the average dairy cow produces approximately $25 worth of nutrients each year as effluent, representing about $10,000 worth of nutrients for a 400-cow herd each year (DairyNZ, 2012). Efficient use of animal waste can therefore have economic benefits as well as environmental benefits from capturing and managing waste appropriately.

The design, operation and maintenance of animal waste systems is critical for avoiding accidental discharges, either through overflows or seepage, which can have adverse effects on the environment. Similarly, the way animal waste is applied to land needs to be managed carefully to avoid ponding and run-off. Research has shown that between 2 and 20 percent of both the nitrogen and phosphorous in applied animal waste is either lost as runoff or leached from the soil profile (Houlebrook, 2008, p.13). The longer animal waste remains in the soil's active root zone, the more opportunity there is for the soil to filter the waste and absorb nutrients for plant growth. If the waste is able to be stored and applied evenly and at well-timed intervals, the waste is a valuable fertiliser resource.

Direct losses of animal waste can occur when it is applied to soils that have limited capacity to store moisture (resulting in ponding), or on slopes, where there is increased risk of overland flow. Direct losses tend to contain high nutrient concentrations, as soils have little opportunity to filter the waste. Indirect losses can occur when there is nutrient enrichment of soils during summer and autumn followed by leaching during winter and spring. Both direct and indirect losses can contribute to degradation in water quality. Water quality across Otago is variable but shows a clear spatial pattern related to land cover and land use, whereby water quality is generally poorer at sites on smaller, low-elevation streams that drain pastoral or urban catchments (Uytendaal & Ozanne, 2018, p.ii).

ORC does not collect detailed information on land use or land management practices, so it is difficult to determine the drivers of water quality issues in the region. However, in the Pomahaka catchment (South Otago), monitoring sites have shown high *E.coli* results which is likely to be caused, at least in part, by animal waste storage issues as well as a high prevalence of subsurface drainage (Uytendaal & Ozanne, 2018, p.10). An earlier report on the Pomahaka found that nutrient-enriched discharges in the catchment were the result of inappropriate effluent application when the soil was saturated or the application rate was too high for soils to absorb (ORC, 2011, p.ii).

Between September 2010 and 30 June 2019, ORC took the following enforcement actions in response to discharges of animal waste:

- 99 infringement notices
- 2 abatement notices
- 54 prosecutions

The number of enforcement actions taken per financial year has ranged from six to 31. This indicates a reasonable degree of non-compliance with the current Plan provisions and there are likely to have been adverse effects on water quality from all of these discharges.

In other regions, such as neighbouring Canterbury and Southland, the construction and use of animal waste systems is managed through regional rules for land use. Uses of land are permitted under section 9(b) of the RMA, unless there is a relevant regional rule. In Otago, there are no land use rules managing the construction or use of animal waste systems, meaning they are permitted activities. Without a regional rule, the Council does not have the ability to set minimum standards for these systems. Anecdotal reports from Council staff indicate that there are some poor storage practices across the region, particularly in South Otago. These are likely to be contributing to degraded water quality in some parts of the region.

Animal waste discharges are managed under the Water Plan. Rule 12.C.0.2 prohibits the discharge of animal waste:

- to any lake, river or regionally significant wetland (or bed thereof), drain or water race that goes to a lake, river, regionally significant wetland or the coastal marine area, or to any bore or soak hole;
- to land in a manner that results in overland flow entering any lake, river, regionally significant wetland or the coastal marine area, or any drain that goes to those waterways;
- to land within 50 metres of any lake, river or regionally significant wetland or any bore or soak hole;
- to saturated land; or
- that results in ponding.

This provides clear direction on some practices that are unacceptable but provides little guidance to farmers as to what is good practice for applying animal waste to land. Compliance staff from ORC have found this rule difficult to enforce, in part due to the issues with timing and weather, which can affect assessments of saturated land and ponding. The lack of regulatory oversight of storage facilities has also been an issue for Compliance staff, who have witnessed poor performance and practice in this area but have limited ability to take enforcement action. There is some concern that the focus on effects encourages application of animal waste to highly porous soils, which can contaminate surface and shallow ground water (for example, the river plains in Waitaki).

Rule 12.C.1 of the Water Plan permits the discharge of contaminants to land provided conditions are met. The conditions of the rule manage matters such as effects on land stability, transfer of water between catchments, hydrological effects on wetlands and visible changes in the water. While some of these may be relevant to animal waste application, they do not address any of the restrictions considered to be standard practice in animal waste application, such as loading rates. As a result, the Water Plan requirements are less restrictive than, and hence out of step with, generally accepted standards and industry guidelines for animal waste application.

#### 3.4.2.4. Reasonably practicable options

Two reasonably practicable options were identified to achieve the objectives of the Water Plan and of the proposal itself:

- Option 1: Status quo
- Option 2: PC8

Option 1: Status quo

The status quo and associated issues are outlined in section 3.4.2.3. As outlined in that section, the status quo is not considered to be effective at achieving the objectives of the Water Plan.

Option 2: PC8

This option introduces a package of provisions that will improve the current minimum standards for animal waste storage and subsequent land application in Otago, bringing the region into line with good practice across the country. There are two elements to the amendments: the first is introducing minimum standards for animal waste storage and requiring resource consent for discharges, and the second is staging implementation to spread the cost and effort required to plan and apply for resource consents over a three-year period. Timeframes for physical works can then be determined on a case-by-case basis through consent applications.

This option introduces:

- a new policy outlining the standards expected for animal waste systems;
- four land use rules managing the storage of animal waste;
- three discharge rules managing the discharge of animal waste;
- a new Schedule containing pond drop test requirements to support implementation of the rules;
- a new Schedule setting out the staged approach to implementing the storage and application rules;
- a new policy outlining how decisions on applications for upgrading existing systems will be made and introducing a staged approach to implementing the new requirements based on risk; and
- New, amended and deleted definitions to assist with interpretation and implementation.

In more detail, the package of provisions provides:

- For use of land for animal waste storage (note that this does not include the discharge of animal waste, which is managed separately):
  - Existing systems that meet the permitted activity criteria in Rule 14.7.1.1 remain a permitted activity.
  - Existing systems that do not meet the permitted activity criteria will either be required to undertake upgrades in order to meet the criteria (as a discretionary activity under Rule 14.7.3.1) or construct new systems (as a controlled activity under Rule 14.7.2.1).
  - For upgrades, existing systems remain permitted until the following dates (calculated using the formula in new Schedule 19) at which point resource consent applications must be received by ORC:
    - 0 – 10 days of storage: six months after PC8 becomes operative
    - 11 – 40 days of storage: two years after PC8 becomes operative
    - 41+ days of storage: three years after PC8 becomes operative
  - For new systems, resource consent applications must be received by ORC within six months of PC8 becoming operative.
- For discharges of animal waste:
  - All discharges will (eventually) require resource consent as a restricted discretionary activity under Rule 12.C.2.5. The date by which an application must be received by ORC is the same as the date in Schedule 19 for the use of land for the system:
    - For discharges from a system that is permitted under Rule 14.7.1.1 or a new system under Rule 14.7.2.1, resource consent applications must be received by ORC within six months after PC8 becomes operative.

- For discharges from a system that is permitted under Rule 14.7.1.2, the date in Schedule 19 that applies to the system is also the date by which resource consent applications for the discharge must be received by ORC.

It is important to note that the dates specified in Schedule 19 are for receiving resource consent applications, not the dates for meeting the minimum standards. Where resource consent applications for upgrades or new animal waste systems are granted, the consents will contain conditions specifying the timeframes for the upgrade or construction work.[9] This allows individual farmers some flexibility in designing a programme of works that will meet the minimum requirements of the Plan.

#### 3.4.2.5. Efficiency and effectiveness evaluation

Table 8 below identifies and assesses the benefits and costs of the environmental, economic, social and cultural effects that are anticipated from the implementation of the changes proposed under Option 2 above.

*Table 8: Benefits and costs for animal waste storage and application*

| BENEFITS | COSTS |
|---|---|
| **Environmental** | |
| ▪ Improvements to animal waste systems will reduce the risk of unmanaged discharges of animal waste, for example through leaks or spills from storage ponds.<br>▪ More stringent management of discharges to land will assist with reducing adverse effects from poor practices, for example ponding or overland flow from over-application of animal waste.<br>▪ Staged implementation means the systems posing the most risk will be improved first, delivering environmental benefits in the short term.<br>▪ User-pays compliance monitoring will allow for greater oversight from ORC of animal waste storage and discharges. | ▪ Existing practices which adversely affect water quality will continue in the interim period before all of the provisions come into effect. |
| **Economic** | |
| ▪ A resource consent provides the consent holder with certainty about their operations for the full term of the consent. Consents are not affected by changes to plans, which is particularly important given the significant changes to Otago's planning framework occurring over the next few years.<br>▪ Improved storage and discharge practices will provide for more efficient use of an existing nutrient source, potentially leading to fertiliser cost savings.<br>▪ There will be growth in industries providing relevant services, such as effluent system design and construction, due to increased demand as a result of PC8. This may result in additional employment opportunities. | ▪ Some farmers will face costs to either upgrade their existing system or construct a new system. The actual costs will depend on the individual farm but are likely to be significant in some cases.<br>▪ All animal waste discharges will require resource consent, meaning applicants will incur costs in preparing and lodging applications. These will vary depending on the circumstances.<br>▪ Once consented, consent holders will be required to pay ongoing monitoring costs. These have yet to be determined.<br>▪ There is a shortage of appropriately qualified people in Otago to design animal waste systems that meet the requirements of PC8, meaning there may be additional costs for applicants in contracting services from outside the region. |

[9] In other regions this is normally around two years, but there is variation depending on the circumstances

| | |
|---|---|
| **Social** | |
| ▪ Improvements to water quality will better support a range of recreational activities in Otago's water bodies, particularly swimming and fishing. | ▪ For farmers who will incur significant costs to meet the standards, PC8 may place considerable stress on those farmers. |
| **Cultural** | |
| ▪ Improvements to water quality will better support Kāi Tahu cultural and spiritual beliefs, values and uses supported by Otago's water bodies.<br>▪ Improvements to water quality also better provide for mahika kai. | ▪ Existing practices which adversely affect water quality and therefore Kāi Tahu beliefs, values and uses will continue in the interim period before all of the provisions come into effect. |

Table 9 below assesses the effectiveness and efficiency of the proposed amendments in achieving the objectives of the proposal.

*Table 9: Efficiency and effectiveness evaluation for animal waste storage and application*

| | |
|---|---|
| **Efficiency** | This option is considered efficient as itprovides a clear and targeted management regime to achieve the objectives of the Water Plan, particularly in relation to the requirement to maintain or improve water quality. Evidence available suggests that a large number of farms across Otago are likely to be some way below the minimum standards proposed, meaning some farms will incur costs (some significant) in upgrading or replacing infrastructure. The staged approach to implementation is intended to assist with spreading these costs over a period of years, giving farmers some flexibility in planning and carrying out the necessary work. Although the costs have the potential to be significant, so do the environmental and cultural benefits. |
| **Effectiveness** | This option is effective at achieving the objectives of the Water Plan. Improved storage and discharge practices will reduce adverse effects on water quality, supporting the requirement to maintain water quality or enhance where it is degraded. There is evidence that poor animal waste management is contributing to water quality issues in some parts of Otago, particularly the Pomahaka catchment. This option enables the discharge of animal waste by requiring a resource consent on which conditions can be placed to ensure that the discharge supports natural and human use values, including Kāi Tahu values. Resource consents and management plans places management of the storage and discharge in the hands of individuals, in line with Objective 7.A.3. |

#### 3.4.2.6. Risk of acting or not acting

Section 32(2)(c) of the RMA requires ORC to take into account the risk of acting or not acting if there is uncertain or insufficient information. Because animal waste storage is unconditionally permitted, little information is available about the quality of systems currently in use. ORC Compliance officers collect some information on animal waste storage volumes (both total volume on farm and storage volume available on the day of the inspection). Of the 474 farms on ORC's dairy inspection list, there is only information recorded for 294 farms. Total storage volumes and storage volumes available on the day both rely on farmer-reported information about the dimensions of the ponds and it is unknown what level of accuracy this results in. Anecdotal evidence from ORC Compliance and Rural Liaison officers is that there are some very poor systems in use across Otago and that most systems would likely fall below the generally accepted standard for animal waste systems.

Fort these reasons, the risk of not acting outweighs the risk of acting so as to justify taking regulatory action.

#### 3.4.2.7. Conclusion

The current provisions in the Water Plan for managing animal waste systems are unlikely to be achieving the outcomes sought by the NPSFM, RPSs and Water Plan, particularly to maintain or

enhance water quality, due to the lack of standards for the storage component of the system and a discharge regime that has been difficult to enforce. Evidence demonstrates that poor practice animal waste discharges are contributing to water quality issues in some parts of Otago and are likely to be contributing in other areas which have not been the subject of scientific investigation (ORC, 2011, p.ii).

The cost-benefit and efficiency and effectiveness assessments above have shown that the proposed amendments in Option 2 are more efficient than the status quo and are more effective at achieving the objectives of the Water Plan and the proposal. This will, in turn, better achieve the outcomes sought by the NPSFM, RPS 1998, PORPS 2016 and PORPS 2019, as well as the purpose of the RMA. The costs, while potentially significant in some cases, are considered appropriate in relation to the contribution of those discharges to water quality generally. Additionally, there is flexibility for improvements to occur at a rate that is financially sustainable for communities.

### 3.4.3. Good farming practices

#### 3.4.3.1. Introduction

Contaminant discharges from farming activities are a major pressure on water quality in many catchments and a threat to further degradation (PCE, 2013; PCE, 2015). Farming activities and the environments within which they occur are highly diverse and the opportunities to address diffuse discharges are often highly property specific. Changes in practices on the ground are key to reducing diffuse discharges from farming activities. This has been a considerable focus of attention from the Government, regional councils and industry bodies in recent years.

Good farming practices (GFPs) are practices that can be used on farms to reduce environmental impacts, particularly by improving water quality through managing nitrogen, phosphorous, sediment and faecal contaminants. Most regional councils have adopted the use of GFPs as a practical method of addressing issues with water quality, however there are a wide range of ways this has occurred. For example, some councils have prescribed GFPs in regional plans, particularly through the use of Farm Environment Plans, while others have promoted their use through non-regulatory methods such as land management advice.

The Government's proposed NESFW, released in 2019, included a rigorous and mandatory regime for implementing GFPs through Farm Plans. There is uncertainty about when and whether this proposal will be progressed further. ORC recognised the deficiencies in the Water Plan for managing discharges from farming activities and introduced PC6A as a result. Some of these provisions were later found to be ambiguous and unenforceable, leading to PC6AA to delay their implementation until 2026. While the new LWRP is developed, it is important that ORC has an appropriate interim management framework for managing the adverse effects from rural discharges.

PC8 proposes to introduce a new policy, three new rules and new definitions relating to farming activities, as well as amendments to an existing rule. The policy sets out the general expectations for farming practices in the longer-term, signalling a shift away from the Plan's current approach to managing water quality. The policy is supported by new and amended provisions managing intensive grazing, stock access to water bodies, and sediment traps. The relevant provisions are:

- New Policy 7.D.9
- Amended Rule 13.5.1.8A
- New Rule 13.5.1.10
- New Rule 14.6.1.1
- New Rule 14.6.2.1
- New definition – critical source area

- New definition – intensive grazing
- New definition – sediment trap
- Deleted definition – feed pad
- Deleted definition – sacrifice paddock
- Deleted definition – stand off pad

#### 3.4.3.2. Objectives

Section 32 requires an evaluation report to examine the extent to which the proposed provisions are the most appropriate way of achieving the objectives of the proposal. The most relevant objectives in the Water Plan are:

- **7.A.1:** To maintain water quality in Otago lakes, rivers, wetlands, and groundwater, but enhance water quality where it is degraded.
- **7.A.2:** To enable the discharge of water of contaminants to water or land, in a way that maintains water quality and supports natural and human use values, including Kāi Tahu values.
- **7.A.3:** To have individuals and communities manage their discharges to reduce adverse effects, including cumulative effects, on water quality.
- **8.3.2:** To minimise reduction in water clarity caused by bed disturbance.

The objective of this proposal is to improve management of discharges from farming activities while reducing the potential for duplication with proposed regulation by the Government.

#### 3.4.3.3. Current issues

The diversity of farming activities and their environments poses challenges for managing discharges from these activities, particularly diffuse discharges. Many local and catchment-based groups are emerging across New Zealand, including in Otago, with a focus on changing behaviour and on-farm practices to address water quality issues. As a regional council, ORC has a statutory responsibility to manage the effects of farming activities on water quality. At a high level, the options for managing effects range from regulatory regimes (for example, mandatory Farm Environment Plans requiring specific actions to be undertaken on farms which may be monitored and/or audited by the regional council) through to non-regulatory approaches (for example, educating farmers by providing land management advice and/or supporting the preparation of voluntary Farm Environment Plans).

The Water Plan's approach for managing rural discharges focuses on managing contaminant discharges rather than the land use activities that lead to those discharges. ORC identified some time ago that this approach was not sufficient for managing discharges from rural activities and introduced PC6A as a result. Those provisions were later found to be ambiguous and unenforceable, and PC6AA was introduced to delay their implementation until 2026. This has left a gap in ORC's planning framework for managing these types of discharges. ORC has recognised the need to address this issue, but is constrained by the uncertainty about the future of the Government's proposals (which may require a comprehensive, mandatory Farm Plan regime for implementing GFPs) and the limited lifespan of the current Water Plan which will be replaced in 2023 by a new LWRP.

In the interim, ORC has identified two specific activities which can have significant adverse effects on water quality but are not well-managed under the current Water Plan: intensive grazing and stock access to water. Additionally, catchment groups in Otago have identified that the Plan provisions currently act as a disincentive to installing sediment traps on farms which can be a useful mitigation tool for reducing sedimentation in water bodies. The following sections discuss these activities in more detail.

### Intensive grazing

In parts of Otago, intensive grazing (also referred to as intensive winter grazing or winter grazing) forms an integral part of pasture-based livestock farming due to low pasture growth (particularly during winter months) and large areas of poorly drained soils. For the year ended June 2018, Otago was estimated to have 52,860 hectares of forage brassicas planted (Ministry for the Environment, 2019). That is the second largest area of forage brassicas in New Zealand after Canterbury. On a per hectares basis, nitrogen leaching losses from grazed winter forage crops are approximately two to five times greater than losses measured from pasture on equivalent soil types and landscapes (Laurensen et al 2018). These losses are a disproportionately large contribution to losses from the whole farm system. Monaghan et al (2017) reported sediment and phosphorus losses from grazed forage crops in South Otago that were 37 and 14 times greater (respectively) than the estimated losses from sheep-grazed pasture. Modelling suggests that winter forage cropping leads to erosion that is equivalent to 2.6 to 3.5 per cent of predicted winter sediment loads in South Island regions where the activity is most prevalent (Ministry for the Environment, 2019b).

As well as effects on water quality, intensive grazing can also have adverse effects on soil, particularly from pugging. Soil compaction resulting from pugging has high potential for damaging soil and, depending on the severity, can impact on land production (Ministry for the Environment, 2019b). It also increases the risk of overland flow.

The Water Plan does not place any controls on intensive grazing practices. Any discharges would be managed either as a permitted activity under Rule 12.C.1.1 or a prohibited activity under Rule 12.C.0.3. The permitted activity rule is generic and does not require implementation of any controls specific to land use practices and the prohibited activity rule only applies once a non-compliant discharge has already occurred, preventing the opportunity to reduce the potential for discharges through proactively managing the activity before it occurs. A prohibited activity also means that the activity must cease, and no resource consent can be applied for to authorise that activity.

### Stock access to water bodies

Livestock that enter water bodies can contaminate the water directly and damage the banks of the water body, particularly heavy livestock such as cattle and deer, and pigs. Livestock can defecate and urinate directly into the water and onto the bed and banks of the water body. Animal waste contains pathogens (disease-causing organisms), which pose a risk to human health. It also contains nutrients, which promote weed growth and reduce the ability of the water body to support healthy aquatic ecosystems. Trampling and pugging of the bed and banks of water bodies can cause soil loss and increased levels of sediment in the water body (Ministry for the Environment, 2019b). Broadly, the current approach taken by the Water Plan is to allow stock access to water bodies as a permitted activity where visible damage does not occur. If the permitted activity conditions are not met, consent is required as a discretionary activity. This has proved difficult to enforce as it required ORC Compliance officers to be on site when the damage is occurring to assess compliance with the rule. It also means that if damage does occur, the requirement to seek resource consent is redundant as the activity has already occurred.

### Sediment traps

Sediment loss from farming activities can be a contributor to poor water quality. One mitigation method for reducing sedimentation is the installation of sediment traps. There is no single definition of a sediment trap and their size and capacity can vary considerably. They range from simple excavations in the beds of waterways to large structures that dam water. Their overall purpose is to reduce water velocity, allowing sediments to settle on the bed. Sediment build-up is removed from the trap regularly to maintain its effectiveness. The Water Plan currently requires resource consent as a discretionary activity for bed disturbance activities that are not specifically provided for. Feedback from catchment

groups has been that this presents a disincentive to installing sediment traps which might otherwise assist with mitigating sedimentation.

#### 3.4.3.4. Reasonably practicable options

Two reasonably practicable options were identified to achieve the objectives of the Water Plan and of the proposal itself:

- Option 1: Status quo
- Option 2: PC8

A range of other options were identified and discounted. Table 10 below outlines the options considered and the reasons for discounting them.

*Table 10: Discounted options for good farming practices*

| Option | Summary of assessment |
|---|---|
| **Good farming practices** | |
| Mandatory farm plans requiring implementation of property-specific good farming practices | This option would improve farming practices across Otago in a property-specific manner, contributing to reducing contaminant loss from farming activities. However, the costs and resourcing required to establish, implement and monitor this type of regime are very high. Given that the Government is proposing a similar regime through the NESFW that would override the Water Plan, it was considered that this option was too risky to progress further due to the potential for farmers and ORC to incur unnecessary expenditure complying with a region-specific regime that may be replaced with a national regime in the coming years. |
| Voluntary farm plans | Voluntary farm plans provide flexibility for farmers to prepare and implement plans in a manner that suits their individual circumstances. However, there is no requirement to comply with or implement them and no monitoring of their effectiveness. There are many industry schemes which support the development of farm plans (for example, Beef & Lamb's Land Environment Plans, Fonterra's Farm Environment Plans). ORC is able to encourage the development of farm plans without requiring any changes to the Water Plan, therefore this option was considered to be outside the scope of PC8. |
| **Stock access to water** | |
| Adopting the proposed Stock Exclusion Regulations | Staff considered whether the stock exclusion in the provisions in the Water Plan should adopt the framework proposed by the Government's stock exclusion regulations. The regulations contain undecided matters (such as the degree of slope on land that differentiates between requirements for 'low slope land' and 'non-low slope land'). The critical nature of some of the undecided matters, in combination with the considerable cost implications for farmers, meant that this option was discounted due to the uncertainty about the Government's proposals. It was not considered efficient to implement a comprehensive stock exclusion regime that may be overridden by Government regulations, which may change from the current proposal given some matters have not yet been decided. |
| **Sediment traps** | |
| Installation and maintenance of sediment traps in flowing water bodies | Staff considered drafting provisions that would provide for sediment traps in flowing water bodies. There were some concerns raised by scientists that work in flowing water could have significant adverse effects and it was not clear from the feedback from catchment groups that those types of sediment traps were preferred. This option was discounted for those reasons. |

#### Option 1: Status quo

The status quo and associated issues are outlined in section 3.4.3.3. As outlined in that section, the status quo is not considered to be effective at achieving the objectives of the Water Plan.

Option 2: PC8

This option includes a policy setting out ORC's longer-term vision for managing farming practices in the region. The policy seeks to enable farming activities while reducing adverse effects through a range of actions, including:

- promoting implementation of GFPs (or better) to reduce contaminant loss;
- progressively excluding stock access to water;
- introducing minimum standards for intensive grazing;
- managing sediment run-off through setbacks, riparian planting and limits on areas or duration of exposed soils; and
- promoting identification and management of critical source areas to reduce the risk of contaminant loss.

The intent of this policy is largely to signal the 'direction of travel' for ORC's management of the effects of farming activities in the future. However, it is supported by targeted rules:

- A new permitted activity rule for intensive grazing with conditions that restrict the total area of intensive grazing and the location (not in a critical source area), and that requires progressive grazing (i.e. from the top of the slope to the bottom) and a vegetated strip to be maintained between the grazing and any water body.
- A new discretionary activity rule for intensive grazing that does not meet the permitted activity criteria.
- Amendments to an existing rule managing stock access to water bodies requiring, from 2022, the exclusion of dairy cattle and pigs from lakes, continually flowing rivers wider than 1 metre and Regionally Significant Wetlands with a 5-metre setback from the water body.
- A new permitted activity rule for constructing or maintaining a sediment trap in ephemeral or intermittently flowing river, with conditions restricting the types of effects generated and the purpose of the work undertaken. Sediment traps not complying with the permitted activity rule would be discretionary activities under existing Rule 13.5.3.1
- A new definition of 'critical source area', to assist with implementation.
- A new definition of 'intensive grazing', restricting the term to grazing on forage crops (excluding pasture and cereal crops) to assist with implementation.
- A new definition of 'sediment trap' restricting the term to excavated areas in the beds of ephemeral or intermittently flowing rivers designed to slow water velocity, to assist with implementation.

This option deletes three definitions which are not used anywhere in the Plan: feed pad, sacrifice paddock, and stand off pad.

### 3.4.3.5. Efficiency and effectiveness evaluation

Table 11 below identifies and assesses the benefits and costs of the environmental, economic, social and cultural effects that are anticipated from the implementation of the changes proposed under Option 2 above.

*Table 11: Benefits and costs for good farming practices*

| BENEFITS | COSTS |
|---|---|
| **Environmental** | |
| ▪ Reduction in sediment loss from intensive grazing and stock damage to beds and banks of water bodies. | ▪ The stock exclusion provisions do not address access to water by non-dairy cattle or deer, meaning those animals will still have access to water which may result in adverse effects. |

| | |
|---|---|
| ▪ Reduction in contaminant loss from intensive grazing and direct discharges from stock to water.<br>▪ Increased regulatory oversight of large intensive grazing operations which may have significant adverse effects.<br>▪ Potential reductions in sedimentation of water bodies through the use of sediment traps. | ▪ Poor land management practices on farms may continue in the absence of a requirement for farm plans or the implementation of GFPs. |
| **Economic** | |
| ▪ As the provisions are a step towards the Government's proposals there is limited potential for significant additional cost to be incurred by farmers in having to change practices should the Government's proposals come into effect.<br>▪ The current regulatory costs associated with installing and maintaining sediment traps in ephemeral and intermittent water bodies will be reduced by making these permitted.<br>▪ Stock exclusion requirements may provide limited economic growth and employment opportunities. | ▪ Farmers will incur costs in excluding stock from water bodies, particularly from fencing and water reticulation.<br>▪ Farmers may incur costs in changing their grazing practices to comply with the permitted activity conditions.<br>▪ Farmers may incur costs in preparing and lodging resource consent applications for intensive grazing and sediment traps that do not comply with permitted activity criteria. They may also incur ongoing monitoring costs should consents be granted.<br>▪ Depending on the costs to farmer of implementing the PC8 provisions, there may be reductions in on-farm employment opportunities. |
| **Social** | |
| ▪ Improved water quality supports a range of recreational activities for communities, including swimming and fishing.<br>▪ Restricting stock access to waterbodies may improve the amenity of these areas. | ▪ Restricting stock access to water may also prevent the public from accessing water if fences are constructed. |
| **Cultural** | |
| ▪ Improvements in water quality better provide for Kāi Tahu cultural and spiritual beliefs, values and uses.<br>▪ Managing the land uses that contribute to reductions in water quality is more consistent with the ki uta ki tai approach, which recognises the interconnections between water, land and people. | ▪ As the provisions proposed are an interim step, some adverse effects on water quality will continue to occur which may affect Kāi Tahu values and uses of fresh water.<br>▪ Restricting stock access to water may also restrict access by Kāi Tahu if fences are constructed, negatively affecting mahinga kai. |

Table 12 below assesses the effectiveness and efficiency of the proposed amendments in achieving the objectives of the proposal.

*Table 12: Efficiency and effectiveness evaluation for good farming practices*

| | |
|---|---|
| **Efficiency** | The provisions for intensive grazing and stock access are likely to reduce contaminant loss (particularly sediment) to water bodies, however they are deliberately designed to be a step towards a more comprehensive management regime rather than achieving the objectives in and of themselves. While there are environmental, cultural and social benefits to reducing contaminant loss, there are also costs for farmers particularly in implementing the provisions and from potentially having to change their practices again in the short term to comply with national direction or a new regional plan. Reducing the regulatory costs of installing and maintaining sediment traps will supporting farmers to implement on-farm mitigation measures to reduce sedimentation of water bodies. Given the drivers for PC6A remain outstanding, it is considered that the benefits from progressing this option outweigh the costs. |
| **Effectiveness** | This option assists with achieving the objectives of the Water Plan and of the proposal itself. Monitoring indicates that water quality is not being maintained in some parts of Otago and |

| | |
|---|---|
| | implementing controls on intensive grazing and stock access to water is likely to lead to some reduction in contaminant loss from those activities, assisting with achieving Objectives 7.A.1 and 7.A.2. The provisions place the onus on land managers to manage their discharges, consistent with 7.A.3. Restricting stock access to water will minimise reductions in water quality caused by bed disturbance in accordance with Objective 8.3.2. Enabling the installation and maintenance of sediment traps will also assist with maintaining or enhancing water quality |

#### 3.4.3.6. Risk of acting or not acting

Section 32(2)(c) of the RMA requires ORC to take into account the risk of acting or not acting if there is uncertain or insufficient information. ORC holds little information about the effect of rural land uses on water quality in Otago so there is uncertainty about the particular land uses that are contributing to degraded water quality. Some evidence is available at the national level about the effects of intensive grazing and stock access to water in particular, establishing that those activities can often result in adverse effects on water quality. ORC has known since prior to 2012 that the Water Plan was not effectively managing discharges from rural activities and there has been continued degradation in the years since due to the ineffectiveness of PC6A. It is well-recognised that the standards in the Water Plan need to be strengthened to achieve Otago's objectives for water quality and the longer that takes to occur, the larger the task at hand. In this case, the risks of not acting outweigh the risks of acting.

#### 3.4.3.7. Conclusion

ORC has identified some time ago that the Water Plan was not effectively managing discharges from rural land uses. The problems with PC6A and its deferral by PC6AA mean that there is now an urgent need to take some steps to reduce adverse effects on water quality until the new regional plan is notified. There is a lack of evidence on land use practices and considerable uncertainty about the future planning framework in Otago, particularly doe to Central Government direction. However the provisions in PC8 are considered to be an interim step towards a more comprehensive regime for managing rural discharges that will ultimately give effect to all higher order instruments.

The cost-benefit and efficiency and effectiveness assessments above have shown that the proposed amendments in option 2 are more efficient than the status quo and are more effective at achieving the objectives of the Water Plan and the proposal itself. This will, in turn, better achieve the outcomes sought by the NPSFM, RPS 1998, PORPS 2016 and PORPS 2019, as well as the purpose of the RMA. This option is considered to appropriately balance the environmental, social and cultural benefits from improving farming practices while limiting the costs incurred in the interim period before the new LWRP is notified and/or the Government's proposals come into force.

### 3.4.4. Sediment from earthworks

#### 3.4.4.1. Introduction

Earthworks are the alteration or disturbance of land, including by moving, removing, placing, blading, cutting, contouring, filling or excavation of earth (or any matter constituting the land including soil, clay, sand and rock) but excluding gardening, cultivation, and disturbance of land for the installation of fence posts.[10] Earthworks are often necessary to facilitate land development for urban expansion. When

[10] Definition from the National Planning Standards

earthworks are undertaken, sub-soils are exposed to the elements which can result in erosion and sediment-laden stormwater discharges, if not managed appropriately.

Stormwater generated and discharged from earthwork or development sites can contain large quantities of fine sediment that stay suspended in the water column and is challenging for sediment control treatment systems to remove. The impacts of sediment-laden stormwater discharges on water quality and downstream receiving environments and ecosystems can be significant. Such adverse effects can also lead to a loss in cultural values. The erosion and loss of soil can also cause adverse effects on soil conservation, which has the potential to reduce the on-site productive capability of land.

PC8 proposes to introduce a new policy and new rule for managing discharges of sediment from earthworks for residential development. The relevant provisions are:

- New Policy 7.D.10
- New Rule 14.5.1.1
- New Rule 14.5.2.1
- New definition – earthworks

#### 3.4.4.2. Objectives

Section 32 requires an evaluation report to examine the extent to which the proposed provisions are the most appropriate way of achieving the objectives of the proposal. The most relevant objectives in the Water Plan are:

- **7.A.1:** To maintain water quality in Otago lakes, rivers, wetlands, and groundwater, but enhance water quality where it is degraded.
- **7.A.2:** To enable the discharge of water or contaminants to water or land, in a way that maintains water quality and supports natural and human use values, including Kāi Tahu values.
- **7.A.3:** To have individuals and communities manage their discharges to reduce adverse effects, including cumulative effects, on water quality.

The objective of this proposal is to reduce sediment loss from earthworks for residential development.

#### 3.4.4.3. Current issues

The Otago Region is characterised by large areas of undulating and hilly topography. Earthworks undertaken on such topography in a manner that does not adequately manage erosion or sediment-laden runoff may result in adverse effects on the quality of water in surface water bodies and downstream ecosystems. Depending on site specific characteristics, this could result in significant adverse effects on water quality and ecology, and lead to a degradation of cultural values. The adverse effects of sediment on water quality and ecology can include (NIWA, n.d.):

- decreased water clarity, reducing visibility for fish seeking food and places to live;
- damage and smothering of fish gills and filter feeding apparatus of invertebrates;
- changes to the benthic environments of streams and waterbeds resulting in the smothering of course substrate with sands and silts;
- decreased numbers of invertebrate species from smothering of habitat;
- decreased food supply at the bottom of the food chain; and
- increased contaminants from surrounding land, as other contaminants such as nutrients and metals can bind to sediment.

The Council does not routinely measure sediment cover or water clarity at State of the Environment (SOE) sites in the Otago region. Turbidity is routinely monitored by Council and shows variable trends

in waterbodies and lakes across the region (Uytendaal & Ozanne, 2018). However, the reasons for such trends remain relatively unknown as the Council does not collect any information on changes in land use or land management that would allow for a confident assessment of drivers of increased turbidity and sediment in surface water bodies. However, SOE monitoring reports that a small number of waterbodies can be very high in turbidity due to natural processes, such as the presence of glacial flour in the Dart River, or a result of historic sources such as historic gold workings in the Taieri surface water reporting region (Uytendaal & Ozanne, 2018). Most water bodies show either an indeterminate or increasing trend in turbidity. Since 1 July 2016, ORC has taken enforcement action (including infringement notices, abatement notices and prosecutions) against 12 instances of non-compliant discharges of sediment from residential development. This has ranged from one to four actions per year.

Section 30(1)(c) of the RMA requires regional councils, among other things, to control the use of land for the purpose of soil conservation[11] and maintenance and enhancement of the quality of water in water bodies.[12] As set out in greater detail below, higher order planning documents anticipate controls for land use activities that could degrade Otago's natural and physical resources be included within the regional plan. There are currently no provisions in the Water Plan that manage the effects of earthworks for the purpose of soil conservation or the maintenance and enhancement of water quality, nor is there a bespoke rule framework which provides specific conditions for the discharge of sediment-laden water.

Historically, the Council has taken the view that controls on land use and development should be restricted to district plans (as a 'one-stop shop' approach), with ORC limiting its intervention to the control of discharges. This is outlined in Method 4.1.5 of the PORPS 2019 which requires ORC to seek the inclusion of appropriate provisions within district plans to manage the discharge of dust, silt and sediment associated with earthworks and land use. This approach has resulted in a varied approach to the management of earthworks in District Plans across the Otago Region. The current approach to having no regional land use rules also makes it difficult for ORC to proactively manage these discharges because the mitigation measures available relate to the use of the land. ORC can therefore only assess compliance with the rules once there has been a discharge, by which point only remediation is available to manage adverse effects. A description of the regional and district plan controls is provided below.

**Regional Plans**

Earthworks are managed under both the Water and Waste Plans. Currently, the Water Plan does not manage the land use component of earthworks,[13] meaning that these activities are able to be undertaken as permitted activities under section 9 of the RMA. Discharges of sediment from earthworks are managed in three ways:

- by the general discharge provisions in section 12.C of the Water Plan;
- by the stormwater discharge provisions in section 12.B of the Water Plan;
- by the contaminated land discharge provisions in the Waste Plan; and
- non-regulatory methods outlined in section 15 of the Water Plan.

<u>General discharges</u>

Rule 12.C.0.3 prohibits the discharge of sediment from disturbed land to water in any lake, river, Regionally Significant Wetland, drain or water race that flows to those water bodies, or the coastal marine area where no measure is taken to mitigate sediment run-off. This manages the very worst

[11] Section 30(1)(c)(i) of the RMA.

[12] Section 30(1)(c)(ii) of the RMA.

[13] It is understood the land use component of earthworks are managed under the relevant District Plans.

situations where there is no management of sediment prior to the discharge occurring. Rule 12.C.0.1 prohibits the discharge of contaminants to water that produce an objectionable odour or a conspicuous oil or grease film, scum or foam in any specified water body. This may apply to discharges from earthworks in addition to Rule 12.C.0.3 depending on the effects resulting from the discharge, including discharges from disturbed land where there were mitigation measures but they were inadequate to prevent a harmful discharge occurring.

Rule 12.C.1.1 sets out the permitted activity criteria for the discharge of water or contaminants to water, or onto or into land where it may enter water. The permitted activity conditions are relatively general and replicate the narrative water quality standards as set out in section 70(1)(c) to (g) of the RMA. In contrast to section 70, however, these standards apply at the point of discharge rather than after reasonable mixing. Particularly relevant for sediment discharges is condition (d)(i)(1) which requires that the discharge not result in a conspicuous change in colour or visual clarity. The glossary defines this as "a visual change in water clarity of more than 40%".

Rule 12.C.1.1 also includes a condition which requires compliance with Rule 12.C.1.1A from 1 April 2020.[14] Rule 12.C.1.1A refers to discharge thresholds in Schedule 16,[15] however there are no standards in Schedule 16 relevant to the measurement of sediment in surface water bodies. Where the permitted activity criteria are unable to be met, the activity is either a restricted discretionary activity under Rules 12.C.2.1 or 12.C.2.2 or a discretionary activity under Rule 12.C.3.2.

The conditions of Rule 12.C.1.1 are reactive rather than proactive as there must be a discharge before compliance can be assessed, increasing the risk that discharges are not managed appropriately at the time they are made. This also raises issues for the efficiency of the rule – as it currently stands, to ensure compliance with the Water Plan developers may need to apply for resource consent prior to the discharge occurring if there is a chance that the permitted activity criteria may not be met. This is difficult to predict in advance as discharges are often the result of weather events. It also means that the requirement for resource consent may only be triggered after the discharge has already occurred. Better environmental outcomes could be achieved with more proactive management of earthworks, particularly by implementing appropriate soil control measures on site prior to earthworks commencing.

Stormwater discharges

The Plan defines 'stormwater' as follows:

*"The water running off from any impervious surface such as roads, carparks, roofs and sealed runways."*

This definition means that stormwater is unlikely to be considered relevant for construction sites until impervious surfaces such as roads or car parks have been established. Rule 12.B.1.8 provides permitted activity criteria for the discharge of stormwater from a reticulated stormwater system to water or land. Similarly, Rule 12.B.1.9 provides permitted activity criteria for the discharge (to water or land) of stormwater from any road or that is not connected to a reticulated stormwater system. The permitted activity conditions of both rules are substantially similar, focusing on a series of general adverse effects including the flooding of property, erosion, land instability and sedimentation. Conditions of both rules also replicate narrative water quality standards that apply after reasonable mixing in the receiving water body as set out in section 70(1)(c) to (g) of the RMA. Where the permitted activity criteria are unable to be met, the activity is assessed as a restricted discretionary activity in accordance with Rule 12.B.3.1.

[14] Condition (g) of Rule 12.C.1.1.

[15] Schedule of Characteristics and numerical limits and targets for good quality water in Otago Lakes and Rivers

Discharges from contaminated land

Under Rule 5.6.1 of the Waste Plan, the disturbance of land at contaminated sites and the discharges of hazardous waste into water or land where it may enter water is a discretionary activity. This rule applies in addition to the relevant rules in the Water Plan.

Non-regulatory methods

Method 15.2.5.1 of the Water Plan states that ORC will encourage operators of existing stormwater reticulation systems to utilise techniques that will assist to reduce the level of contaminants discharged from the systems. Method 15.5.1 states that ORC will encourage and support the development and use of codes of practice and environmental management systems that reduce adverse effects on water resources. It does not appear that either of these methods have been proactively implemented by ORC in respect of discharges from earthworks.

**District plans**

Under section 31(1), territorial authorities have responsibility for managing the effects of the use, development or protection of land and associated natural and physical resources of the district as well as the control of any actual or potential effects of the use, development or protection of land. This provides for territorial authorities to manage the effects of land use from earthworks, including the adverse effects of soil erosion. A range of approaches to managing earthworks is taken by territorial authorities in Otago. Most district plans contain setback requirements from waterways, and some (such as in Queenstown-Lakes and Dunedin City) include requirements for implementation of sediment control practices to prevent sediment entering water bodies. The approaches taken around Otago vary in terms of the matters they control and the thresholds they establish.

The challenge for ORC is fulfilling its own obligations under the RMA regarding the management of discharges of sediment from earthworks while not unnecessarily duplicating controls in the district plans. The ability to more proactively manage discharges must be balanced with the complexity of having multiple planning documents addressing the same activity.

#### 3.4.4.4. Reasonably practicable options

Two reasonably practicable options were identified to achieve the objectives of the Water Plan and of the proposal itself:

- Option 1: Status quo
- Option 2: PC8

Option 1: Status quo

The status quo and associated issues are outlined in section 3.4.4.3. As outlined in that section, the status quo is not considered to be effective at achieving the objectives of the Water Plan.

Option 2: PC8

This option proposes a new policy, two new rules and a new definition of earthworks to control the land use and discharge components of earthworks for residential development. The general intent of the provisions is to permit smaller-scale earthworks where on-site practices are implemented to prevent or reduce the adverse effects of sediment discharges and require resource consent for larger scale earthworks where the adverse effects of any discharges are likely to be more significant. The provisions are as follows:

- New Policy 7.D.10 prioritises avoiding discharges or, where this is not achievable, best practice guidelines for minimising sediment loss are implemented.
- New Rule 14.5.1.1 permits the use of land and associated discharge of sediment for earthworks for residential development subject to conditions, including that the area of exposed earth is no more than 2,500m$^2$ in any 12-month period, there are setbacks from water bodies, and basic on-site management practices are implemented to prevent accidental discharges.
- Any activities which do not comply with the conditions of Rule 14.5.1.1 are a restricted discretionary activity under Rule 14.5.2.1. The matters which ORC's discretion are restricted to are:
    - Erosion, land stability, sedimentation or property damage resulting from the activities.
    - Effectiveness of proposed erosion and sediment control measures.
    - Compliance with the *Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region 2016.*
    - Adverse effects on water quality and natural or human use values, including Kāi Tahu values.

The *Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region 2016* are considered to be best practice guidelines nationally and are a commonly used standard for earthworks activities, including in Queenstown-Lakes.

The existing prohibited activity rules (12.C.0.3 and 12.C.0.1) will continue to apply, along with Rule 5.6.1 of the Waste Plan. Rules 12.B.1.8, 12.B.1.9, and 12.B.3.1 for stormwater discharges will also continue to apply, to the extent that they are relevant.

#### 3.4.4.5. Efficiency and effectiveness evaluation

Table 13 below identifies and assesses the benefits and costs of the environmental, economic, social and cultural effects that are anticipated from the implementation of the changes proposed under Option 2 above.

*Table 13: Benefits and costs for sediment from earthworks*

| BENEFITS | COSTS |
|---|---|
| **Environmental** | |
| ▪ Provides greater regulatory oversight of an activity which has potential to result in significant environmental effects, particularly on water quality.<br>▪ Requiring consent for larger-scale earthworks provides an opportunity to proactively manage discharges, potentially reducing the frequency and volume of these types of discharges.<br>▪ Reduced sedimentation in Otago's water bodies. | |
| **Economic** | |
| ▪ Reduced risk of enforcement action by having consent for discharges in advance of them occurring.<br>▪ Consent holders have certainty over their activities and the adequacy of on-site mitigation measures proposed.<br>▪ There may be economic benefits from wider purchase and use of sediment control equipment and additional work on-site to install and implement them. | ▪ Applicants will incur costs in preparing and lodging resource consent applications. In some parts of Otago these will be additional to costs for land use consents from the relevant district council.<br>▪ Consent holders may incur costs in implementing a higher standard of sediment control measures than is currently the case.<br>▪ ORC will receive resource consent applications which are not currently required, potentially affecting resourcing. |

| Social | |
|---|---|
| ▪ Reduced sedimentation supports recreational uses of Otago's water bodies, particularly swimming and fishing, and improves peoples' general experience of the water bodies.<br>▪ Clarity for plan users about the acceptable minimum standards for earthworks activities. | ▪ There is potential for confusion for plan users due to the overlap of functions between ORC and the district councils. |
| **Cultural** | |
| ▪ More stringent management of sediment discharges better recognises the relationship with Kāi Tahu cultural values and desired outcomes for fresh water.<br>▪ Improvements in water quality better provide for Kāi Tahu cultural and spiritual beliefs, values and uses. | |

Table 14 below assesses the effectiveness and efficiency of the proposed amendments in achieving the objectives of the proposal.

*Table 14: Efficiency and effectiveness evaluation for sediment from earthworks*

| | |
|---|---|
| **Efficiency** | There are potentially significant environmental and cultural benefits arising from the proposed provisions, as well as general improvement and clarification to the current rule framework which has posed difficulties for compliance monitoring and enforcement. However there are also costs, some of which may duplicate the costs incurred by plan users under Otago's district plans. This arises from the overlap of regional council and territorial authority functions in the RMA. Some of these costs may only be incurred once (for example, technical advice on appropriate sediment control measures to support district and regional consent applications) whereas others will be in addition to existing charges (for example, the cost of applying for consent from ORC in addition to the relevant district council). Some of these costs may be reduced through ORC and district councils working together to implement their respective rules. The environmental and cultural benefits from reducing sedimentation in water bodies and potentially improving water quality are considered to outweigh the costs. |
| **Effectiveness** | This option is effective in assisting with achieving the objectives of the Water Plan and of the proposal itself. Reducing sedimentation is consistent with Objective 7.A.1 to maintain water quality or enhance where it is degraded. The proposed rule framework aims to enable earthworks for residential development in a way that maintains water quality and supports the values of the water bodies, in accordance with Objective 7.A.2. The proposed provisions will require people to better manage their discharges to reduce adverse effects on water quality which is consistent with Objective 7.A.3. The objective of the proposal itself is to reduce sediment loss from earthworks which is achieved through a proactive management regime of a permitted activity rule for smaller-scale earthworks and a requirement for resource consent for larger-scale earthworks. Resource consents provide an opportunity for ORC to place conditions on the exercise of the consent, setting out the required standards to be implemented and providing for compliance monitoring. |

#### 3.4.4.6. Risk of acting or not acting

Section 32(2)(c) of the RMA requires ORC to take into account the risk of acting or not acting if there is uncertain or insufficient information. ORC does not routinely monitor sediment cover or water clarity at SoE sites, but turbidity monitoring shows increasing trends in some water bodies. The reason for those increases is unclear. Despite this lack of information, engagement with communities in the Manuherekia, Arrow and Cardona catchments has indicated sediment from earthworks can be a significant issue in those areas and Compliance officers report considerable difficulty in monitoring and enforcing the current rules. Given the potential significance of the adverse effects arising from sediment discharges, the risk of not acting is considered to outweigh the risk of acting.

#### 3.4.4.7. Conclusion

Managing discharges of sediment from earthworks assists with supporting the life-supporting capacity of fresh water and maintaining the quality of fresh water, in accordance with the NPSFM and RPS 1998. Taking a more consistent approach to sediment management across Otago also supports integrated management of fresh water and the use and development of land. The PORPS 2016 requires minimising soil erosion resulting from activities, in part by using appropriate erosion controls and soil conservation methods. A regionally consistent approach to setting minimum standards for earthworks in order to minimise sediment loss gives effect to the NPSFM, RPS 1998 and PORPS 2016. It is also likely to assist with achieving the water quality outcomes sought by the NZCPS as sedimentation can adversely affect coastal water. Option 2 is not consistent with the direction in the PORPS 2019, however that document is currently under review and a new RPS is intended to be notified in November 2020 so this inconsistency will be short lived.

The cost-benefit and efficiency and effectiveness assessments above have shown that the proposed amendments in Option 2 may be more efficient than the status quo and are more effective at achieving the objectives of the Water Plan and the proposal. There will be costs in implementing Option 2, mostly arising from the requirement to implement appropriate mitigation measures and to seek resource consent for some activities. The latter may duplicate costs already being incurred to comply with district plan provisions across Otago. These may be reduced through ORC and the district councils working together to implement their respective plans and some costs will be incurred regardless (for example, technical advice on mitigation measures). The environmental benefits from the proposal will potentially outweigh the costs. The proposal is considered to be far more effective at achieving the Plan's objectives than the status quo.

### 3.4.5. Nationally or regionally important infrastructure

#### 3.4.5.1. Introduction

The Water Plan requires protecting the values of regionally significant wetlands while providing for nationally or regionally important infrastructure. Currently, the Water Plan uses the term "nationally or regionally important infrastructure" while the PORPS 2019 uses the term "nationally and regionally significant infrastructure" and provides a list of infrastructure meeting that definition. There has been debate through consent processes about whether "important" and "significant" are synonymous and whether the Water Plan provisions should be interpreted in reference to the list of infrastructure in the PORPS 2019. PC8 proposes one minor amendment to the relevant policy in order to align the terminology with the PORPS 2019 and clarify implementation of the policy. The relevant provisions are:

- Amendments to Policy 10.4.2

#### 3.4.5.2. Objectives

Section 32 requires an evaluation report to examine the extent to which the proposed provisions are the most appropriate way of achieving the objectives of the proposal. The most relevant objectives in the Water Plan are:

- **10.3.2:** Otago's Regionally Significant Wetlands and their values and uses are recognised and sustained.

The objective of this proposal is to clarify the implementation of Policy 10.4.2.

### 3.4.5.3. Current issues

Policy 10.4.2 in the Water Plan is to:

> *Avoid the adverse effects of an activity on a Regionally Significant Wetland or a regionally significant wetland value, but allow remediation or mitigation of an adverse effect only when the activity:*
>
> *(a) Is lawfully established; or*
>
> *(b) Is nationally or regionally important infrastructure, and has specific locational constraints; or*
>
> *(c) Has the purpose of maintaining or enhancing a Regionally Significant Wetland or a regionally significant wetland value.*

This policy is important for decision-making on consent applications for the take and use of water in sections 12.1 and 12.2, damming or diversion of water in section 12.3, discharges in sections 12.B and 12.C and the use of land (including for structures) in Chapter 13.

The term "nationally or regionally important infrastructure" is not defined in the Plan. However, Policy 4.3.2 of the PORPS 2019 lists the infrastructure considered to be nationally and regionally significant. There has been confusion for both ORC staff and those wishing to undertake activities in wetlands about what constitutes "nationally or regionally important infrastructure" and whether "important" and "significant" are synonymous.

### 3.4.5.4. Reasonably practicable options

Two reasonably practicable options were identified to achieve the objectives of the Water Plan and of the proposal itself:

- Option 1: Status quo
- Option 2: PC8

Option 1: Status quo

The status quo and associated issues are outlined in section 3.4.5.3. As outlined in that section, the status quo is not considered to be effective at achieving the objectives of the Water Plan.

Option 2: PC8

Under this option, the term "nationally or regionally important" in Policy 10.4.2 is replaced with "nationally or regionally significant infrastructure" in line with the terminology and definition used in the PORPS 2019.

### 3.4.5.5. Efficiency and effectiveness evaluation

Table 15 below identifies and assesses the benefits and costs of the environmental, economic, social and cultural effects that are anticipated from the implementation of the changes proposed under Option 2 above.

*Table 15: Benefits and costs for nationally or regionally important infrastructure*

| BENEFITS | COSTS |
|---|---|
| **Environmental** | |

| | |
|---|---|
| ▪ Clarifying the terminology may bring more activities within the requirement to avoid adverse effects on regionally significant wetlands, preventing adverse effects on those water bodies and protecting their values. | ▪ As the current term is not defined, defining it in line with the PORPS 2019 may allow activities with adverse effects on regionally significant wetlands to occur that were previously considered to not meet the exception provided in Policy 10.4.2(b). |
| **Economic** | |
| ▪ Reducing the potential for debates about interpretation and application of Policy 10.4.2 will improve the efficiency and reduce the cost of implementing those provisions.<br>▪ Clarifying the terminology also clarifies the expectations for both applicants and ORC staff, assisting to reduce costs in the consenting process. | ▪ Some activities currently occurring in wetlands may no longer be in scope of the 'exemption' provided by Policy 10.4.2(b). This may require those activities to seek resource consent or prevent them from continuing to occur where consent cannot be granted. |
| **Social** | |
| | ▪ Some activities currently occurring in wetlands may no longer be in scope of the 'exemption' provided by Policy 10.4.2(b). This may require those activities to seek resource consent or prevent them from continuing to occur where consent cannot be granted. |
| **Cultural** | |
| ▪ Kāi Tahu seek the protection and enhancement of existing wetlands, which is supported in part by this option which clarifies which activities are able to remediate or mitigate adverse effects on wetlands rather than avoid them. | |

Table 16 below assesses the effectiveness and efficiency of the proposed amendments in achieving the objectives of the proposal.

*Table 16: Efficiency and effectiveness evaluation for nationally or regionally important infrastructure*

| | |
|---|---|
| **Efficiency** | This option clarifies how achievement of Objective 10.3.2 should occur through the corresponding policies and rules. It is efficient at achieving the purpose of the proposal because it aligns the Water Plan terminology with that of the PORPS 2019. The costs are unclear but are likely to be limited given the amendment is for clarification purposes rather than substantially changing the policy approach. There are implementation benefits for plan users and ORC staff in clarifying the policy and reducing the potential for debates. |
| **Effectiveness** | This option provides a clearer pathway towards achieving Objective 10.3.2 to recognise and sustain regionally significant wetlands and their values. It assumes that Objective 10.3.2 and the corresponding policies and rules remain an effective way to achieve the purpose of the RMA – that assessment is out of scope of this plan change. |

#### 3.4.5.6. Risk of acting or not acting

Section 32(2)(c) of the RMA requires ORC to take into account the risk of acting or not acting if there is uncertain or insufficient information. In this case, it is not known how many activities are occurring under the 'exception' provided in Policy 10.4.2(b) – it is possible that some activities may no longer be within the scope of that exception, and also that some activities not exercising that exception may be able to in the future. The risk of acting is low as the amendment is purely operational and for clarification purposes. Therefore, the risk of not acting outweighs the risk of acting.

#### 3.4.5.7. Conclusion

The amendment proposed for this topic will give better effect to the PORPS 2019 and is introduced primarily for efficiency and implementation reasons. The cost-benefit and efficiency and effectiveness assessments above have shown that the proposed amendments in Option 2 are more efficient than the status quo and more effective at achieving the objectives of the Water Plan. This is because Option 2 clarifies the application of a key policy for implementing the corresponding rule framework and makes the provision more consistent with the PORPS 2019.

# 4. Proposed Plan Change 1 to the Waste Plan

## 4.1. Introduction

This section of the report evaluates the provisions of PC1 in accordance with the requirements of section 32 as set out in section 1.1 of this report. Under section 32(1), ORC is required to examine the extent to which the objectives of the proposal are the most appropriate way to achieve the purpose of the RMA. It is also required to examine whether the provisions in the proposal are the most appropriate way to achieve the objectives. For changes to existing plans (referred to as amending proposals), section 32(3)(b) clarifies that this examination must relate to the provisions and objectives of the amending proposal, and the objectives of the existing proposal (i.e. plan) to the extent that those objectives are relevant to the objectives of the amending proposal and would remain if the amending proposal was to take effect. For each topic, the relevant objectives from the Regional Plan: Waste for Otago (Waste Plan) and the objective of the proposed amendments are identified.

## 4.2. Overview of Proposed Plan Change 1

The Waste Plan was made operative in 1997 and has not been amended or reviewed under section 79 of the RMA since that time. As a result, it has become out of date with current expectations regarding environmental management. The entirety of the Waste Plan will be reviewed alongside the Water Plan in preparation of a new LWRP. PC1 is an interim measure to address two pressing issues with the existing Waste Plan provisions in order to improve environmental outcomes until the review of the Waste Plan has been completed and that Plan has been integrated into the new LWRP.

In tandem with PC8, the overall purpose of PC1 is to strengthen the management of discharges in order to maintain, as a minimum, water quality in Otago. It does this by introducing stricter controls on the use of dust suppressants (and particularly waste oil) and improved minimum standards for landfills in order to reduce the adverse effects of these activities.

## 4.3. Development of Proposed Plan Change 1

PC1 complements the focus of PC8 on making targeted improvements to Otago's planning framework until the new LWRP is notified in 2023. The Waste Plan has been operative for over 20 years but has not been amended in that time. Ultimately the Waste Plan will be reviewed and incorporated into the new LWRP, however in the meantime PC1 aims to ensure that its provisions remain fit-for-purpose.

The original scope of PC1 was to address overlaps between the Water and Waste Plans, however once assessments of the overlaps began it became clear that there are structural and jurisdictional issues with the Waste Plan that make it difficult to resolve the main tensions between the plans without a full review. Accordingly, the scope was then limited to issues with waste oil and landfills that were considered to be pressing environmental concerns.

## 4.4. Evaluation of Proposed Plan Change 1

For the purposes of this evaluation, the provisions in PC1 are grouped by topic as follows:

- Dust suppressants
- Landfills

### 4.4.1. Dust suppressants

#### 4.4.1.1. Introduction

PC1 proposes amendments and new provisions to incentivise the use of safer alternatives to waste oil as a dust suppressant and prevent the adverse effects of using waste oil by providing for the use of dust suppressants as a permitted activity (subject to conditions) or discretionary activity (where the permitted activity conditions are not met) and prohibiting the use of waste oil. The relevant provisions are:

- Amendments to Policy 6.4.10
- Amendments to Methods 6.5.6 and 6.5.23
- Amendments to Rules 6.6.2 and 6.6.3
- Amendments to 6.6.3.1 Assessment Matters
- New Rule 6.6.4
- New definition of 'waste oil'
- Consequential amendments to section 6.1.2.2, Issue 6.2.5, Objective 6.3.1, Methods 6.5.6 and 6.5.23, Principal Reasons for hazardous substances and hazardous waste rules, and Anticipated Environmental Result 6.7.6.

#### 4.4.1.2. Objectives

Section 32 requires an evaluation report to examine the extent to which the proposed provisions are the most appropriate way of achieving the objectives of the proposal. The most relevant objectives in the Waste Plan are:

- **6.3.1:** To avoid, remedy and mitigate the risk to the environment and human health from hazardous substances and hazardous wastes.
- **6.3.2:** To avoid, remedy and mitigate the harmful effects of hazardous substances and hazardous wastes on traditional water, land and mahika kai values of importance to Kāi Tahu.

The objective of this proposal is to manage the adverse effects arising from the use of dust suppressants.

#### 4.4.1.3. Current issues

There is a large network of unsealed roads in Otago, including approximately 1,800 kilometres in the Central Otago and Clutha districts alone. Dust from gravel roads can pollute the air, reduce visibility and road safety and generally be a nuisance for rural residences. Some residents apply dust suppressants to the roads close to their properties, including waste oil (primarily waste engine oil) or apply to their local territorial authority to have it applied on their behalf.

Some territorial authorities within the Otago region have already begun phasing out the use of waste oil as a dust suppressant. For example, Clutha District Council confirmed through its 2016/17 Annual Plan that it would no longer apply waste oil to gravel roads (Clutha District Council, 2018) and Central Otago District Council states that it is currently phasing out the use of waste oil (Central Otago District Council, 2015).

Waste engine oil contains a large number of hazardous contaminants, including a number of carcinogens (Ward, 2016). These substances are known to be hazardous to both human health and the environment. Contaminants can be transferred to the environment when the oil is applied to roads or once the surface of the oiled road breaks down. When the surface breaks down and the road becomes dusty again, contaminants can bind to the dust and be blown into the air or shifted by traffic or water.

There are safer alternatives to waste oil for human and environmental health (Gisborne District Council, n.d.).

Used oil is classified as a hazardous substance under the Hazardous Substances and New Organisms Act 1996 (HSNO) and is defined as:

> *any oil that has been refined from crude oil, or any synthetic hydrocarbon oil, that has been used, and as a result of such use, has become unsuitable for its original purpose due to the presence of impurities or contaminants or the loss of original properties (Environmental Protection Authority, 2013)*

Approvals under HSNO set controls for hazardous substances throughout their lifecycle, such as requirements for storage, identification, emergency management and disposal. The Environmental Protection Authority's code of practice for *Managing and handling used oil* specifically states inappropriate methods of disposal for waste oil, which include disposal on the ground and any practices in which the used oil may cause contamination of the ground and ground water, migrate to watercourses, contaminate air or have negative impacts on humans, plants, animals or other organisms. Applying waste oil to roads is likely to be considered an inappropriate disposal method under HSNO.

#### 4.4.1.4. Reasonably practicable options

Two reasonably practicable options were identified to achieve the objectives of the Waste Plan and of the proposal itself:

- Option 1: Status quo
- Option 2: PC1

These options are discussed in more detail below.

Option 1: Status quo

The status quo and associated issues are outlined in section 4.4.1.3. As outlined in that section, the status quo is not considered to be effective at achieving the objectives of the Waste Plan.

Option 2: PC1

This option proposes amendments to one existing policy and two existing rules as well as one new rule to incentivise the use of appropriate dust suppressants and prohibit the use of waste oil. Broadly, this option:

- allows the use of dust suppressants as a permitted activity subject to conditions, including that the substance is not hazardous, has been approved under HSNO and the use is undertaken in accordance with all conditions of the approval;
- allows resource consent to be applied for where a dust suppressant does not meet the permitted activity criteria;
- prohibits the use of waste oil as a dust suppressant; and
- makes consequential amendments to an objective, policy, method and assessment matters to reflect the revised rule framework.

Option 2 is the preferred option and is assessed in more detail below.

#### 4.4.1.5. Evaluation

Table 17 below identifies and assesses the benefits and costs of the environmental, economic, social and cultural effects that are anticipated from the implementation of the changes proposed under Option 2 above.

*Table 17: Benefits and costs for dust suppressants*

| BENEFITS | COSTS |
|---|---|
| **Environmental** | |
| ▪ Improved water quality due to a reduction in the use of waste oil as a dust suppressant.<br>▪ Continued suppression of dust, reducing air pollution.<br>▪ Reduction in the discharge of contaminants known to be toxic and/or carcinogenic. | ▪ Potential increase in air pollution if people choose not to apply alternatives to waste oil. |
| **Economic** | |
| ▪ Compliant with HSNO requirements for disposal of waste oil and use of hazardous substances, reducing the potential for compliance costs.<br>▪ There may be economic benefits arising from increased demand for dust suppressants that are not waste oil. | ▪ Likely increases in the cost of suppressing dust as alternative substances are generally more expensive than waste oil.<br>▪ Some activities may require resource consent, with applicants incurring costs in preparing and lodging applications. |
| **Social** | |
| ▪ Reduction in adverse effects on amenity from the use of waste oil (for example, odour).<br>▪ Reducing adverse effects on water quality supports recreational uses of water bodies, for example swimming and fishing. | |
| **Cultural** | |
| ▪ Avoids effects of waste oil discharges on traditional water, land and mahika kai values.<br>▪ Improvements in water quality will better provide for Kāi Tahu cultural and spiritual beliefs, values and uses supported by fresh water bodies in Otago. | |

Table 18 below assesses the effectiveness and efficiency of the proposed amendments in achieving the objectives of the proposal.

*Table 18: Efficiency and effectiveness evaluation for dust suppressants*

| | |
|---|---|
| **Efficiency** | This option achieves the objectives of the Waste Plan and the proposal by managing adverse effects more stringently and placing the costs of improvement on those responsible for the discharges. The costs likely to be incurred by those having to use an alternative substance do not outweigh the benefits of reducing the adverse effects from the use of waste oil. |
| **Effectiveness** | This option is effective at achieving the objectives of the Waste Plan as it prevents adverse effects from the use of waste oil while providing for safer alternatives, meaning the original problem (i.e. dust from roads) can continue to be managed. In line with the objectives, this option avoids or remedies the risk to the environment and human health and better manages the harmful effects on traditional water, land and mahika kai values of importance to Kāi Tahu. |

#### 4.4.1.6. Risk of acting or not acting

Section 32(2)(c) of the RMA requires ORC to take into account the risk of acting or not acting if there is uncertain or insufficient information. ORC does not hold comprehensive information on the amount of waste oil being applied to roads in Otago or current uptake of alternative products. Given the significant adverse effects of this activity, the risk of not acting outweighs the risk of acting.

#### 4.4.1.7. Conclusion

Waste oil is a hazardous substance that can have significant adverse effects on fresh water quality and habitats. Prohibiting its use as a dust suppressant will prevent these adverse effects, which will better achieve the general intent of the NPSFM, RPS 1998 and PORPS 2019 to maintain water quality, or enhance it where it is degraded. Providing for the use of other types of dust suppressants will allow the use of safer alternatives to waste oil, which is also consistent with reducing adverse effects on water quality.

The cost-benefit and efficiency and effectiveness assessments above have shown that overall, the proposed amendments are more efficient than the status quo and are more effective at achieving the objectives of the Waste Plan and the proposal. This will, in turn, better achieve the outcomes sought by the NPSFM, RPS 1998, PORPS 2016 and PORPS 2019, as well as the purpose of the RMA.

### 4.4.2. Landfills

#### 4.4.2.1. Introduction

PC1 introduces a new policy for landfills requiring implementation of current best practice for the design, construction and operation of landfills and deletes Appendix 2 which sets out the matters to be included in a landfill development and management plan. The intent of the amendments is to improve the current minimum standards for landfills. The relevant provisions are:

- New Policy 7.4.11
- Amendments to 7.6.1.1 Information requirements
- Amendments to 7.6.1.2 Assessment matters
- Amendments to Appendix 2
- Consequential amendments to Issues 7.2.2 and 7.2.3, Objectives 7.3.1 and 7.3.2, Policy 7.2.6, Method 7.5.7, 7.6.6.1 Information requirements and 7.6.7.1 Information Requirements

#### 4.4.2.2. Objectives

Section 32 requires an evaluation report to examine the extent to which the proposed provisions are the most appropriate way of achieving the objectives of the proposal. The most relevant objective in the Waste Plan is:

- **7.3.1:** To avoid, remedy or mitigate the adverse environmental effects arising from the discharge of contaminants at and from landfills.

The purpose of this proposal is to improve the policy direction in the Waste Plan so that it reflects current best industry practice for establishing and managing landfills.

#### 4.4.2.3. Current issues

Landfills are disposal sites for a variety of waste materials that are a necessary and valuable resource for society. However, they can result in adverse effects on the environment which can be significant if not managed appropriately. Potential adverse environmental effects include (Ministry for the Environment, 2000):

- discharge of leachate and subsequent contamination of groundwater or surface water (particularly for landfills sited in or close to sensitive water bodies or coastal environments) and impairment of their life-supporting capacity or use;
- discharge of potentially explosive or flammable landfill gas which may have a noxious odour and may damage soil health and vegetation;
- subsidence or instability of surrounding land;
- odour, noise and dust discharges to air;
- litter;
- nuisance effects from birds, flies and vermin; and
- effects on amenity generally (particularly visual amenity).

The Waste Plan takes an holistic approach to managing landfills by requiring resource consent for the discharge of contaminants into or onto land, into water, or into air as a discretionary activity under Rule 7.6.1. Section 7.4 of the Waste Plan contains specific policies for landfills that relate to waste and environmental management generally, as well as the siting, on-going operation, upgrading and monitoring of landfills specifically. None of these provisions has been amended since they became operative in 1997 and they are no longer considered to represent a 'best practice' approach to managing landfills. Additionally, they provide little guidance to decision-makers on resource consent applications for landfills. Policy direction is particularly useful for discretionary activities where the council has full discretion to consider any relevant matter and is not directed to consider particular matters.

Appendix 2 of the Waste Plan contains a list of matters to be included in a landfill development and management plan, which is an information requirement of the relevant rules for landfills and offal pits. Appendix 2 contains a range of matters, including some that more appropriately form part of the assessment of environmental effects included with a resource consent application (such as identifying discharges and environmental effects, mitigation measures, and description of the site). The matters are simply listed and do not contain associated standards for each matter. This is a permissive approach to an activity which can have significant, long-term adverse effects and is considerably out of date with current industry best practice.

The current approach is not considered to be effective in achieving the objectives of the Waste Plan.

#### 4.4.2.4. Reasonably practicable options

Two reasonably practicable options were identified to achieve the objectives of the Waste Plan and of the proposal itself:

- Option 1: Status quo
- Option 2: PC1

Option 1: Status quo

The status quo and associated issues are outlined in section 4.4.2.3. As outlined in that section, the status quo is not considered to be effective at achieving the objectives of the Waste Plan.

Option 2: PC1

Broadly, this option requires the design and operation of landfills to be in accordance with current industry best practice, being the Waste Minimisation Institute New Zealand's *Technical Guidelines for Disposal to Land* (August 2018) which covers siting, design, construction, operations and management. It implements this by introducing a new policy outlining minimum standards for landfill design and operation in order to minimise the adverse effects from discharges from landfills. It also makes amendments to a range of existing provisions, including the relevant rules requiring resource consent for landfills and amending Appendix 2 so that it only applies to offal pits because its content currently contains matters for inclusion in a landfill development and management plan that are not consistent with current best practice for landfill management.

#### 4.4.2.5. Efficiency and effectiveness evaluation

Table 19 below identifies and assesses the benefits and costs of the environmental, economic, social and cultural effects that are anticipated from the implementation of the changes proposed under Option 2 above.

*Table 19: Benefits and costs for landfills*

| BENEFITS | COSTS |
|---|---|
| **Environmental** | |
| ▪ Reduction in adverse effects from discharges to water and air from landfills, particularly from leachate and hazardous wastes.<br>▪ Fewer adverse effects in the long-term from improved minimum standards for the initial siting, design and construction of landfills. | |
| **Economic** | |
| ▪ Landfills operating in accordance with best environmental practice are likely to be more economically viable in the long-term as environmental regulation is unlikely to become more permissive in the future.<br>▪ Landfills directly and indirectly employ a number of people in Otago and their continued operation will maintain employment opportunities. | ▪ There may be costs to landfill operators to upgrade or change systems or practices where proposed or existing landfills do not comply with the required minimum standards.<br>▪ The cost of preparing and lodging applications for resource consent under existing rules may increase due to additional and more stringent requirements introduced by PC1. |
| **Social** | |
| ▪ Continued provision of valuable waste management services to communities. | ▪ Communities may continue to experience some adverse effects on amenity, particularly in the vicinity of landfills. |
| **Cultural** | |
| ▪ A reduction in adverse effects (particularly on water quality) will better support Kāi Tahu values and uses of resources.<br>▪ More stringent requirements at the policy level may reduce the level of involvement of Kāi Tahu at the individual consent stage. | |

Table 20 below assesses the effectiveness and efficiency of the proposed amendments in achieving the objectives of the proposal.

*Table 20: Efficiency and effectiveness evaluation for landfills*

| | |
|---|---|
| **Efficiency** | This option achieves the objectives of the Waste Plan and the proposal by setting minimum standards for landfills in order to reduce the potential for adverse effects on the environment. The costs of this option largely fall on those responsible for the discharges, while the benefits are experienced by communities more widely. The costs that may be incurred do not outweigh the benefits and are considered to be appropriate given the potential significance of the adverse effects arising. |
| **Effectiveness** | This option is effective at achieving the relevant objective of the Waste Plan to avoid, remedy or mitigate adverse environmental effects from discharges at and from landfills. This is because it establishes minimum standards for landfills based on current industry best practice, which aims to reduce the environmental impacts of landfills. |

#### 4.4.2.6. Risk of acting or not acting

Section 32(2)(c) of the RMA requires ORC to take into account the risk of acting or not acting if there is uncertain or insufficient information. ORC has not undertaken an assessment of every landfill against the WasteMINZ guidelines so there is some uncertainty about how far away from those standards Otago's landfills currently are. There are 45 resource consents granted for landfills under Rule 7.6.1 of the Waste Plan. These consents have expiry dates ranging from 2021 to 2053. There are 18 expiring before 2025 which are the most likely to be impacted by the content of PC1, although the standards set through PC1 may be carried through to the new LWRP.

The guidelines represent current best practice and are considered an appropriate minimum standard given the potentially significant adverse effects of landfills and their long-term nature. In this case, it is considered that the risk of not acting outweighs the risk of acting.

#### 4.4.2.7. Conclusion

Knowledge about the effects of landfills and best practice management approaches has evolved considerably over the past 20 years. Amending the Waste Plan to implement current best practice will assist with reducing adverse effects on land, water and air. The cost-benefit and efficiency and effectiveness assessments above have shown that the proposed amendments in Option 2 are more efficient than the status quo and are more effective at achieving the objectives of the Waste Plan and the proposal. This will, in turn, better achieve the outcomes sought by the NPSFM, RPS 1998, PORPS 2016 and PORPS 2019, as well as the purpose of the RMA. Costs are incurred by those responsible for the discharges while benefits are experienced by whole communities.

# 5. Planning context

## 5.1. Resource Management Act 1991

The purpose of a regional plan is to assist a regional council to carry out its functions in order to achieve the purpose of the RMA.[16] The purpose and principles of the RMA, and the functions of ORC, are set out in the following sections of this report. ORC has been mindful of the responsibilities and obligations imposed by sections 5-8, 30, 63, 65-70 and Schedule 1 of the RMA when preparing these plan changes, to ensure the RMA requirements have been met throughout.

### 5.1.1. Part 2 – Purpose and Principles

The purpose of the RMA is set out in Part 2, section 5 of the RMA:

*(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.*

*(2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—*

*(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*

*(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*

*(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

The RMA also sets out the following matters of national importance (in section 6), directing that all persons exercising functions and powers under the RMA recognise and provide for them:

*(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:*

*(b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:*

*(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:*

*(d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:*

*(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:*

*(f) the protection of historic heritage from inappropriate subdivision, use, and development:*

*(g) the protection of protected customary rights:*

*(h) the management of significant risks from natural hazards.*

Section 7 of the RMA sets out other matters to which all persons exercising functions and powers under the RMA are directed to have particular regard:

*(a) kaitiakitanga:*

*(aa) the ethic of stewardship:*

*(b) the efficient use and development of natural and physical resources:*

[16] Section 63(1), RMA

*(ba) the efficiency of the end use of energy:*
*(c) the maintenance and enhancement of amenity values:*
*(d) intrinsic values of ecosystems:*
*(f) maintenance and enhancement of the quality of the environment:*
*(g) any finite characteristics of natural and physical resources:*
*(h) the protection of the habitat of trout and salmon:*
*(i) the effects of climate change:*
*(j) the benefits to* be derived from the use and development of renewable energy.

Section 8 of the RMA requires that persons exercising functions and powers under it shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). The Treaty principles are used in a number of statues but are not defined in legislation. The principles relate to the obligations of the Crown under the Treaty of Waitangi and have been derived predominantly from Court of Appeal decisions in relation to cases under the State-Owned Enterprises Act 1986. The principles are:

- The two parties to the Treaty must act reasonably towards each other and in utmost faith;
- The Crown must make informed decisions (which will require consultation, but not invariably so);
- The Crown must not unreasonably impede its capacity to provide redress for proven grievances; and
- The Crown must actively protect Maori interests.

Sections 6-8 establish matters for consideration in decision-making under the RMA that contribute to the overall evaluation under section 5. There is a hierarchy across these sections, giving priority to matters of national importance under section 6 over the matters set out for consideration in sections 7 and 8. Section 6(a), (c) and (e) are particularly relevant to PC8 and PC1 given the Plan Changes manage effects on water resources. Sections 7(a), (aa), (b), (c), (d), (f) and (h) should also be considered alongside the Treaty principles when assessing the Plan Changes.

The Plan Changes are considered to comply with the requirements of Part 2. The intent of the provisions is to strengthen the management of activities that are contributing to degradation of water quality in Otago, assisting to recognise the relevant matters in sections 6 and 7. They have been developed in collaboration with Kāi Tahu and taking into account the Kāi Tahu Ki Otago Natural Resources Management Plan 2005.

### 5.1.2. Functions of ORC

Section 30 of the RMA sets out the functions of regional councils. It is extensive in nature, including a wide range of matters that relate to both land use and water. Those of relevance to PC8 and PC1 include:

- establishing, implementing and reviewing objectives, policies, and methods to achieve integrated management of the natural and physical resources of the region (section 30(1)(a));
- controlling the use of land (including the beds of lakes and rivers) to maintain and enhance the quality and quantity of water and ecosystems in water bodies (section 30(1)(c)); and
- controlling the discharge of contaminants onto land or water and discharges of water into water (section 30(1)(f)).

'Control' means the Council has statutory authority to regulate activities, and, if necessary, to enforce rules against individuals or organisations. All of the changes proposed by the Plan Changes are within the scope provided by section 30.

### 5.1.3. Regional Plans

Section 63(1) of the RMA sets out the purpose of regional plans, being to assist the regional council to carry out its functions to achieve the purpose of the RMA. Sections 65 to 70 set out a number of technical and procedural matters to be followed in the preparation of a regional plan. Of most relevance are the following:

- Any change to a regional plan must be carried out in the manner set out in Schedule 1 (section 65(2)).
- When changing a regional plan, the Council must have regard to a proposed Regional Policy Statement (section 66(2)(a)
- When changing a regional plan, the Council must have regard to management plans and strategies prepared under other Acts, and take into account any relevant planning document recognised by an iwi authority, to the extent that their content has a bearing on the resource management issues of the region (section 66(2)(c)(i) and (2A)(a)).
- Regional councils must prepare and change regional plans in accordance with their functions under section 30, the provisions of Part 2, a direction given under section 25(1), its obligation to prepare an evaluation report in accordance with section 32, its obligation to have particular regard to that evaluation report, a national policy statement, New Zealand coastal policy statement, national planning standard and any regulations (section 66(1)).
- Regional plans must state objectives, policies, and rules (if any) (section 67(1)).
- A regional plan must give effect to any national policy statement, national planning standard, New Zealand coastal policy statement and regional policy statement (section 67(3)).
- A regional plan must not be inconsistent with a water conservation order, or another regional plan for the region (section 67(4)).

Sections 68-70 contain specific requirements about the application of regional rules, including those related to water quality and discharges. The Plan Changes have been prepared in accordance with these sections.

## 5.2. National Policy Statements

In accordance with section 67(3)(a) of the RMA, a regional plan must give effect to any national policy statement. There are four national policy statements in force:

- National Policy Statement for Freshwater Management 2014 (as amended 2017; NPSFM);
- National Policy Statement on Electricity Transmission (NPSET);
- National Policy Statement on Urban Development Capacity (NPSUDC); and
- National Policy Statement for Renewable Electricity Generation (NPSREG)

Similarly, in accordance with section 67(3)(b) of the RMA, a regional plan must give effect to any New Zealand Coastal Policy Statement. There is one New Zealand coastal policy statement in force:

- New Zealand Coastal Policy Statement 2010 (NZCPS)

The NPSET, NPSREG and NPSUDC are not considered relevant to PC8 or PC1. The relevant parts of the NPSFM and NZCPS are set out below.

### 5.2.1. National Policy Statement for Freshwater Management

The NPSFM came into effect on 1 August 2014 and amendments made in August 2017 took effect on 7 September 2017. The matter of national significance that the NPSFM relates to is the management of fresh water through a framework that considers and recognises Te Mana o Te Wai as an integral part of freshwater management.

Broadly, the NPSFM sets the direction for freshwater quality and quantity management in New Zealand. Regional councils are directed under the RMA to give effect to the requirements of the NPSFM when developing statutory plans and plan changes. The NPSFM requires freshwater quality to be maintained (where it is of good quality) or improved over time (where it does not meet the requirements of the NPSFM) and includes a national objectives framework for achieving this. The NPSFM also requires engagement with iwi, hapū and community in setting freshwater outcomes and timeframes.

The NPSFM allows councils until 2025 (or 2030 in some circumstances) to fully implement all policies of the NPSFM. ORC has adopted a PIP setting out a time-staged process for implementing the NPSFM in the Otago region.[17] The PIP includes developing a new framework for water management in Otago, starting with establishing FMUs and a review of the Water and Waste Plans. The actions outlined in the PIP demonstrate that ORC is intending to implement the following policies through that time-staged process (which does not include these Plan Changes):

- Policies A1, A2 and A3(a)
- Policies B1, B2, B5 and B6
- Objective CA1, Policies CA1, CA2, CA3 and CA4
- Objective CB1, Policies CB1, CB2, CB3 and CB4

Additionally, Policy A6 has been implemented already.[18] Table 21 below provides an assessment of these Plan Changes against the NPSFM provisions that are relevant (i.e. excluding those listed above which are being implemented through an alternative process).

*Table 21: Assessment of NPSFM*

| Provision(s) | Assessment |
|---|---|
| **Objective AA1**<br>To consider and recognise Te Mana o te Wai in the management of fresh water.<br><br>**Policy AA1**<br>By every regional council making or changing regional policy statements and plans to consider and recognise Te Mana o te Wai, noting that:<br>a) Te Mana o te Wai recognises the connection between water and the broader environment – Te Hauora o te Taiao (the health of the environment), Te Hauora o te Wai (the health of the waterbody) and Te Hauora o te Tangata (the health of the people); and | Te Mana o te Wai is the integrated and holistic well-being of a freshwater body. The NPSFM anticipates that each community will decide what Te Mana o te Wai means to them at a freshwater management unit scale, based on their unique relationship with freshwater in their area.<br>When Te Mana o te Wai is given effect, the water body will sustain the full range of environmental, social, cultural and economic values held by iwi and the community.<br><br>The Water and Waste Plans do not currently recognise Te Mana o Te Wai explicitly as they were prepared before the provisions relating to Te Mana o Te Wai were introduced to the NPSFM. |

[17] https://goodwaterinotago.orc.govt.nz/national-policy-statements

[18] Draft targets can be viewed at https://www.orc.govt.nz/managing-our-environment/water/water-quality-targets/draft-regional-swimming-targets-for-otago and final targets at https://www.orc.govt.nz/managing-our-environment/water/water-quality-targets/regional-swimming-targets-for-otago

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| b) values identified through engagement and discussion with the community, including tangata whenua, must inform the setting of freshwater objectives and limits. | They do however seek to maintain and enhance the values of Otago's water bodies (see Chapter 5 of the Water Plan).<br><br>Because of their targeted scope, PC8 and PC1 do not enable a full consideration and recognition of Te Mana o Te Wai. This is one of the matters that will be addressed through ORC's full review of the Water and Waste Plans. |
| **Objective A1**<br>To safeguard:<br>a) the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, of fresh water; and<br>b) the health of people and communities, as affected by contact with fresh water;<br>in sustainably managing the use and development of land, and of discharges of contaminants.<br><br>**Objective A2**<br>The overall quality of fresh water within a freshwater management unit is maintained or improved while:<br>a) protecting the significant values of outstanding freshwater bodies;<br>b) protecting the significant values of wetlands; and<br>c) improving the quality of fresh water in water bodies that have been degraded by human activities to the point of being over-allocated.<br><br>**Objective A3**<br>The quality of fresh water within a freshwater management unit is improved so it is suitable for primary contact more often, unless:<br>a) regional targets established under Policy A6(b) have been achieved; or<br>b) naturally occurring processes mean further improvement is not possible.<br><br>**Objective A4**<br>To enable communities to provide for their economic well-being, including productive economic opportunities, in sustainably managing freshwater quality, within limits.<br><br>**Policy A3**<br>By regional councils:<br>a) *not applicable*<br>b) where permissible, making rules requiring the adoption of the best practicable option to prevent or minimise any actual or likely adverse effect on the environment of any discharge of a contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process | The provisions of these Plan Changes relate to water quality and seek to safeguard important freshwater values in sustainably managing the use and development of land and the discharge of contaminants. PC8 and PC1 introduce strengthened management regimes for a range of specific activities known to have adverse effects on water quality. Better oversight and stricter minimum standards will reduce contaminant loss and assist with safeguarding the life-supporting capacity, ecosystem processes and indigenous species of fresh water. The National Objectives Framework in Appendix 2 assigns *E. coli* as the attribute for the human health for recreation value. Potential reductions in *E. coli* from preventing stock access to water and improving management of effluent and intensive grazing will assist with safeguarding the health of people and communities as affected by contact with fresh water.<br><br>The Plan Changes also seek to assist with achieving Objective 7.A.1 of the Water Plan, which is to maintain water quality in Otago lakes, rivers, wetlands and groundwater, but enhance water quality where it is degraded. This is generally consistent with the requirements of Objective A2. The Water Plan identifies natural and human use values supported by Otago's rivers and lakes as well as spiritual and cultural beliefs, values and uses of significance to Kāi Tahu. It also identifies regionally significant wetlands and includes specific restrictions on activities affecting those wetlands. PC8 does not alter this approach.<br><br>These Plan Changes form part of ORC's implementation of Objective A3 in that they seek to strengthen management of activities known to contribute *E. coli* to water bodies. Full implementation of this objective will occur in conjunction with the PIP.<br><br>The provisions in PC8 and PC1 seek to implement minimum standards, good management practices and best industry practice as applicable to the specific activities within scope of the Plan Change in order to prevent or minimise adverse effects of discharges, consistent with Policy A3(b). They have been developed with consideration of any effects on the economic well-being of |

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| from the discharge of that contaminant, any other contaminant) entering fresh water.<br><br>**Policy A7**<br>By every regional council considering, when giving effect to this national policy statement, how to enable communities to provide for their economic well-being, including productive economic opportunities, while managing within limits. | communities, including productive economic opportunities, in accordance with Policy A7. |
| **Objective B1**<br>To safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the taking, using, damming, or diverting of fresh water.<br><br>**Policy B3**<br>By every regional council making or changing regional plans to the extent needed to ensure the plans state criteria by which applications for approval of transfers of water take permits are to be decided, including to improve and maximise the efficient allocation of water.<br><br>**Policy B4**<br>By every regional council identifying methods in regional plans to encourage the efficient use of Water.<br><br>**Policy B8**<br>By every regional council considering, when giving effect to this national policy statement, how to enable communities to provide for their economic well-being, including productive economic opportunities, while managing within limits. | None of the provisions in PC8 or PC1 relate to the taking, use, damming or diverting of fresh water; transfer of water take permits; or efficient use of water.<br><br>As outlined previously, these Plan Changes have been developed with consideration of any effects on the economic well-being of communities, including productive economic opportunities. |
| **Objective C1**<br>To improve integrated management of fresh water and the use and development of land in whole catchments, including the interactions between fresh water, land, associated ecosystems and the coastal environment.<br><br>**Policy C1**<br>By every regional council:<br>a) recognising the interactions, ki uta ki tai (from the mountains to the sea) between fresh water, land, associated ecosystems and the coastal environment; and<br>b) managing fresh water and land use and development in catchments in an integrated and sustainable way to avoid, remedy or mitigate adverse effects, including cumulative effects.<br><br>**Policy C2**<br>By every regional council making or changing regional policy statements to the extent needed to provide for | PC8 and PC1 both seek to improve integrated management by better managing, in particular, land use activities that can have adverse effects on water bodies. Diffuse discharges from nutrient loss on farms are a major water quality problem in New Zealand (PCE, 2018). They are difficult discharges to manage because they come from a large number of small (sometimes unknown) sources, compared to point source discharges which tend to be from a small number of known points. Activities that expose bare earth (such as earthworks for development) significantly increase the potential for the discharge of sediment and other contaminants to water bodies, negatively affecting water quality (Leersnyder et al, 2018).<br><br>The traditionally effects-based approach of the Water Plan has focused on managing discharges directly rather than land uses. An effects-based approach is by nature reactive and has proven ineffective in some instances. In the case of sediment from earthworks, the Plan has limited |

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| the integrated management of the effects of the use and development of:<br>a) land on fresh water, including encouraging the co-ordination and sequencing of regional and/or urban growth, land use and development and the provision of infrastructure; and<br>b) land and fresh water on coastal water. | ORC's ability to require good sediment control prior to sediment run-off occurring.<br><br>PC8 and PC1 introduce provisions to manage particular activities known to contribute to diffuse discharges: animal waste management and intensive grazing. This will more efficiently target particular activities that are causing problems while recognising that land uses across catchments contribute to issues with water quality. This also better recognises the link between upstream land uses and effects on water quality in the coastal marine area, assisting with maintaining or improving coastal water quality as well as freshwater quality. |
| **Objective CC1**<br>To improve information on freshwater takes and sources of freshwater contaminants, in order to:<br>a) ensure the necessary information is available for freshwater objective and limit setting and freshwater management under this national policy statement; and<br>b) ensure information on resource availability is available for current and potential resource users.<br><br>**Policy CC1**<br>By every regional council:<br>a) establishing and operating a freshwater quality accounting system and a freshwater quantity accounting system for those freshwater management units where they are setting or reviewing freshwater objectives and limits in accordance with Policy A1, Policy B1, and Policies CA1-CA4; and<br>b) maintaining a freshwater quality accounting system and a freshwater quantity accounting system at levels of detail that are commensurate with the significance of the freshwater quality and freshwater quantity issues, respectively, in each freshwater management unit.<br><br>**Policy CC2**<br>By every regional council taking reasonable steps to ensure that information gathered in accordance with Policy CC1 is available to the public, regularly and in a suitable form, for the freshwater management units where they are setting or reviewing, and where they have set or reviewed, freshwater objectives and limits in accordance with Policy A1, Policy B1, and Policies CA1-CA4. | The information gathering and accounting systems are subject to separate processes and are not affected by PC8 or PC1. However, the Plan Changes will assist with the collection of data and information on contaminants and risk in some instances, particularly where resource consents are required for activities that are currently permitted. |
| **Objective D1**<br>To provide for the involvement of iwi and hapū, and to ensure that tangata whenua values and interests are identified and reflected in the management of fresh water including associated ecosystems, and decision-making regarding freshwater planning, including on | Aukaha have been involved in the preparation of these Plan Changes from the early stages. Section 3 outlines the specific stages at which Kāi Tahu have been consulted prior to notification of the Plan Changes. Feedback from Aukaha has been taken into account when drafting provisions in particular. |

| | |
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| how all other objectives of this national policy statement are given effect to.<br><br>**Policy D1**<br>Local authorities shall take reasonable steps to:<br>a) a) involve iwi and hapū in the management of fresh water and freshwater ecosystems in the region;<br>b) work with iwi and hapū to identify tangata whenua values and interests in fresh water and freshwater ecosystems in the region; and<br>c) reflect tangata whenua values and interests in the management of, and decision-making regarding, fresh water and freshwater ecosystems in the region. | Feedback has also been sought from Te Ao Marama Inc, who represent runaka outside the Aukaha rohe, and Te Rūnanga o Ngai Tahu. |

The Plan Changes are considered to give effect to the NPSFM, noting that some of the provisions in the NPSFM are being implemented through a separate planning process while others have already been implemented.

### 5.2.2. New Zealand Coastal Policy Statement

The New Zealand Coastal Policy Statement 2010 (NZCPS) came into effect on 3 December 2010 and applies to the coastal marine area and the coastal environment. The NZCPS recognises that activities inland from the coastal environment can have a major influence on coastal water quality as a consequence of point source and non-point source discharges, including stormwater and wastewater.

The NZCPS requires a strategic approach to managing adverse cumulative effects on the coastal environment. It also provides for the integrated management of natural and physical resources and activities, and the management of discharges and enhancement of water quality in the coastal environment. Fresh water resources also occur within the coastal environment and the protection of this resource is important to the economic, social and cultural wellbeing of people and communities.

PC8 and PC1 are consistent with the NZCPS provisions.

## 5.3. National Environmental Standards

In accordance with section 43B(3) of the RMA, a rule in a regional plan is unable to be more lenient than a national environmental standard unless the national environmental standard expressly states that a rule can be more lenient. There are currently six national environmental standards in force:

- National Environmental Standards for Air Quality 2004 (NESAQ);
- National Environmental Standard for Sources of Human Drinking Water 2007 (NESHDW);
- National Environmental Standards for Telecommunication Facilities 2008 (NESTF);
- National Environmental Standard for Electricity Transmission Activities 2009 (NESETA);
- National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 (NESCS); and
- National Environmental Standards for Plantation Forestry 2017 (NESPF).

The NESHDW and NESPF are considered relevant in the context of PC8 and PC1.

### 5.3.1. National Environmental Standard for Sources of Human Drinking Water

The NESHDW came into effect on 20 June 2008 and sets requirements for protecting sources of human drinking water from becoming contaminated. The NESHDW requires regional councils to ensure that effects of activities on drinking water sources are considered in decisions on resource consents and regional plans. Specifically, regional councils are required to:

- decline discharge or water permits that are likely to result in community drinking water becoming unsafe for human consumption following existing treatment;
- be satisfied that permitted activities in regional plans will not result in community drinking water supplies being unsafe for human consumption following existing treatment; and
- place conditions on relevant resource consents that require notification of drinking water suppliers if significant unintended events occur (eg, spills) that may adversely affect sources of human drinking water.

PC8 and PC1 are consistent with the NESHDW.

## 5.4. National Environmental Standards for Plantation Forestry

The NESPF came into effect on 1 May 2018. The objectives of the NESPF are to:

- maintain or improve environmental outcomes associated with plantation forestry activities nationally; and
- increase certainty and efficiency in the management of plantation forestry activities.

The regulations apply to any forest larger than one hectare that has been planted specifically for harvesting. Eight core plantation forestry activities are covered by the standards, these include; afforestation; pruning and thinning to waste; earthworks; river crossings; forestry quarrying; harvesting mechanical land preparation and replanting. The regulations generally prevail over regional and district plan provisions that apply to plantation forestry. Plan rules cannot be more lenient than the regulations and can only be more stringent where they relate to managing the unique and sensitive environments defined in the NESPF.

The proposed provisions for managing earthworks for residential development apply to residential development only. A note has been included with these proposed provisions to clarify that they do not apply to activities managed by the NESPF.

## 5.5. National Planning Standards

Under section 67(3)(ba) of the RMA, a regional plan must give effect to a national planning standard. National planning standards have been introduced to improve the consistency of council plans and policy statements. The Minister for the Environment and the Minister of Conservation released the first set of national planning standards on 5 April 2019. The first set of national planning standards aim to provide national consistency for the structure, form, definitions and electronic accessibility of RMA plans and policy statements to make them more efficient and easier to prepare and use.

PC8 and PC1 do not give effect to the national planning standards, as the standards apply to regional plans (not plan changes), and regional councils are not required to adopt the standards in their plans until 10 years after their gazettal date (unless a regional plan is notified earlier). However, where terms are used that are defined in the national planning standards, those definitions are adopted in the Plan

Changes. ORC will give full effect to the national planning standards through the longer-term work programme to review and replace the Water and Waste Plans.

## 5.6. Water Conservation Orders

Under section 67(4)(a), a regional plan must not be inconsistent with a water conservation order. Water conservation orders are orders that recognise and sustain outstanding amenity or intrinsic values of waters. Once operative, water conservation orders place restrictions on the granting of some types of resource consents where they affect the water body subject to the order. In Otago, there is one water conservation order in force on the Kawarau River.

### 5.6.1. Water Conservation (Kawarau) Order 1997

This order recognises that the Kawarau River and its tributaries have the following outstanding amenity and intrinsic values:

- natural and physical qualities and characteristics that contribute to:
  - people's appreciation of pleasantness of waters
  - aesthetic coherence
  - cultural attributes
  - recreational attributes
- biological and genetic diversity of ecosystems
- essential characteristics that determine the ecosystem's integrity, form, functioning and resilience

As the protected waters are considered to be in their natural state, they must be preserved as far as possible in that state. For waters not in their natural state, the order recognises that they still have the following outstanding characteristics:

- as a habitat for terrestrial and aquatic organisms
- as a fishery
- for its wild, scenic and other natural characteristics
- for scientific values
- for recreational or historical purposes
- for significance in accordance with tikanga Māori

The order places a number of restrictions on the damming, diversion and quality of water in the protected waters in order to preserve or protect the values above, which affects ORC's ability to grant resource consents for some activities. There are some exemptions for particular activities listed in the order.

No parts of PC8 and PC1 are inconsistent with the provisions of this water conservation order.

## 5.7. Lake Wanaka Preservation Act 1973

When exercising functions under the RMA, including the development of regional plans or plan changes, ORC is required to have regard to the purposes of the Lake Wanaka Preservation Act 1973

and shall give effect to the policy of the government in relation to those functions as communicated by the Minister of Conservation.[19]

The Lake Wanaka Preservation Act 1973 has the following purposes:

- To prevent the water in the body of the lake from being impounded or controlled by, or, as far as possible, obstructed by, any works except in an emergency;
- To prevent the natural rate of flow of lake water between the outlet of the lake which forms the source of the Clutha River and the confluence of that river and the Cadrona River from being varied or controlled by any works except in an emergency;
- To preserve, as far as possible, the water levels of the lake and its shoreline in their natural state; and
- To maintain and, as far as possible, to improve the quality of water in the lake.

As with the Kawarau River water conservation order, the Plan Changes do not introduce any changes that affect the consistency with the Lake Wanaka Preservation Act. The full review of the RPS and Water Plan provides an opportunity to consider the overall resource management framework and whether any improvements are required to align with this legislation.

## 5.8. Regional Policy Statements

Under section 67(3), a regional plan must give effect to any regional policy statement. Under section 66(2)(a), a regional council must also have regard to any proposed regional policy statement. In Otago, there are currently three regional policy statements at play:

- Regional Policy Statement for Otago 1998 (RPS 1998)
- Partially Operative Otago Regional Policy Statement 2019 (PORPS 2019)
- Proposed Otago Regional Policy Statement 2016 (PORPS 2016)

The RPS 1998 is partially operative as some provisions have been revoked and are replaced by provisions in the PORPS 2019. The PORPS 2016 and PORPS 2019 are two versions of the same document: the PORPS 2019 contains all of the provisions that are beyond challenge and have been made operative while the PORPS 2016 contains the provisions still subject to appeal and therefore not operative. Generally, the most relevant provisions for these Plan Changes have not been made operative and so are contained in the RPS 1998 and the PORPS 2016. Greater weight should be afforded to the provisions of the PORPS 2016 than the RPS 1998 given how far through the planning process it is (under appeal) and the fact that it will, in time, replace the RPS 1998 entirely.

### 5.8.1. Regional Policy Statement for Otago 1998

There are two operative chapters of the RPS 1998 that are relevant for PC8 and PC1:

- Chapter 5: Land
- Chapter 6: Water

The relevant provisions from these chapters and an assessment of the Plan Changes against them is set out in Table 22 below. These provisions are operative and must be given effect to by the Plan Changes.

*Table 22: Assessment of RPS 1998*

[19] Clause 8, Lake Wanaka Preservation Act 1973.

| Provision(s) | Assessment |
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| **Chapter 5: Land** | |
| **Objective 5.4.1**<br>To promote the sustainable management of Otago's land resources in order:<br>(a) To maintain and enhance the primary productive capacity and life-supporting capacity of land resources; and<br>(b) To meet the present and reasonably foreseeable needs of Otago's people and communities.<br><br>**Objective 5.4.2**<br>To avoid, remedy or mitigate degradation of Otago's natural and physical resources resulting from activities utilising the land resource.<br><br>**Policy 5.5.2**<br>To promote the retention of the primary productive capacity of Otago's existing high class soils to meet the reasonably foreseeable needs of future generations and the avoidance of uses that have the effect of removing those soils or their life-supporting capacity and to remedy or mitigate the adverse effects on the high class soils resource where avoidance is not practicable.<br><br>**Policy 5.5.3**<br>To maintain and enhance Otago's land resource through avoiding, remedying or mitigating the adverse effects of activities which have the potential to, among other adverse effects:<br>(a) Reduce the soil's life-supporting capacity<br>(b) Reduce healthy vegetative cover<br>(c) Cause soil loss<br>(d) Contaminate soils<br>(e) Reduce soil productivity<br>(f) Compact soils<br>(g) Reduce soil moisture holding capacity<br><br>**Policy 5.5.5**<br>To minimise the adverse effects of landuse activities on the quality and quantity of Otago's water resource through promoting and encouraging the:<br>(a) Creation, retention and where practicable enhancement of riparian margins; and<br>(b) Maintaining and where practicable enhancing, vegetation cover, upland bogs and wetlands to safeguard land and water values; and<br>(c) Avoiding, remedying or mitigating the degradation of groundwater and surface water resources caused by the introduction of contaminants in the form of chemicals, nutrients and sediments resulting from landuse activities. | PC8 introduces a range of amended and new provisions to manage uses of land that are known to have adverse effects both on water and soil quality. In particular, these are intensive grazing, effluent storage and application, and earthworks. These activities can negatively affect soil health and structure through the reduction of healthy vegetative cover, loss of soil, contamination of soil, reduction of soil productivity and compaction. The intent of the provisions in PC8 is to introduce controls on these activities to ensure they occur in a manner that minimises environmental effects and in line with good management practices.<br><br>PC1 revises the current regime for the use of dust suppressants, including prohibiting the use of waste oil as a dust suppressant which is currently permitted. Waste oil is a known contaminant which has the potential to adversely affect water and soil quality depending on the circumstances and locations in which it is applied. PC1 also contains strengthened policies for decision-making on resource consent applications for landfills. Landfills have the potential to contaminate soil and it is expected that the strengthened policies will require landfills to operate at best industry practice and minimise environmental effects.<br><br>For the above reasons, the provisions of PC8 and PC1 are considered to give effect to the provisions of Chapter 5 of the RPS 1998. |
| **Chapter 6: Water** | |
| **Objective 6.4.2** | The overall intent of both PC8 and PC1 is to strengthen the management of discharges that can adversely affect |

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| To maintain and enhance the quality of Otago's water resources in order to meet the present and reasonably foreseeable needs of Otago's communities.<br><br>**Objective 6.4.3**<br>To safeguard the life-supporting capacity of Otago's water resources through protecting the quantity and quality of those resources.<br><br>**Objective 6.4.4**<br>To maintain and enhance the ecological, intrinsic, amenity and cultural values of Otago's water resources.<br><br>**Policy 6.5.5**<br>To promote a reduction in the adverse effects of contaminant discharges into Otago's water bodies through:<br>(a) Adopting the existing water quality of Otago's water bodies as a minimum acceptable standard; and<br>(b) Investigating and where appropriate, enhancing water quality so that as a minimum standard it is suitable for contact recreation and aquatic life where:<br>(i) There is a high public interest in, or use of the water; or<br>(ii) *Revoked*<br>(iii) There is a particular value to be maintained or enhanced; or<br>(iv) There is a direct discharge containing human sewage or wastes from commercial or industrial activities; and<br>(c) Requiring that all discharges into Otago's water bodies maintain the standard for the receiving waters after reasonable mixing; and<br>(d) Promoting discharges to land where practicable and where there are no significant adverse effects on groundwater or surface water resources, or soil; and<br>(e) Preparing contingency responses for accidental pollution spills; and<br>(f) Investigating and addressing the effects of diffuse source discharges on water quality;<br>while considering financial and technical constraints.<br><br>**Policy 6.5.6**<br>To protect Otago's remaining significant wetlands from the effects of any activity except:<br>(a) Where such activities can be shown to have no significant adverse effects on:<br>(i) Community needs; or<br>(ii) *Revoked*<br>(iii) The natural hydrological characteristics of the wetland; or<br>(iv) The natural character of the water body; or<br>(v) Amenity values; or<br>(vi) Intrinsic values of ecosystems or<br>(vii) Salmon or trout habitat; or | water quality. This is primarily achieved by introducing minimum standards for a range of activities that can negatively affect water quality, including intensive grazing, effluent storage and application and earthworks. In replacement of the changes introduced by PC6A, PC8 focuses largely on managing land uses that contribute to diffuse source discharges by requiring the adoption of good management practices and by setting thresholds above which resource consent is required to undertake the activity, providing more stringent oversight by ORC.<br><br>PC1 aims to reduce the discharge of contaminants from the use of waste oil as a dust suppressant and from landfills. Both types of discharges can contain hazardous substances which can have significant adverse effects on water quality. By prohibiting the use of waste oil and strengthening the policies for landfills, PC1 improves the management of these activities.<br><br>For the above reasons, the provisions of PC8 and PC1 are considered to give effect to the provisions of Chapter 6 of the RPS 1998. |

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| (b) Where alternative habitats of a similar or improved nature are provided in compensation for any loss of habitat.<br><br>**Policy 6.5.9**<br>To allow for the community's use, development or protection of the beds and banks of Otago's water bodies provided:<br>(a) Any adverse effects on:<br>(i) *Revoked*<br>(ii) The natural character of the water body; or<br>(iii) Habitats of indigenous fauna; or<br>(iv) Amenity values; or<br>(v) Intrinsic values of ecosystems; or<br>(vi) Salmon or trout habitat; or<br>(vii) Outstanding natural features or landscapes<br>are avoided, remedied or mitigated, and that the life-supporting capacity of the water body is maintained and, where practicable, enhanced; while<br>(b) Considering the maintenance and, where practicable, enhancement of the natural functioning of river systems; and<br>(c) Considering the need to provide mitigation to lessen the threat posed by flooding and riverbank erosion. | |

For the above reasons, the Plan Changes are considered to give effect to the RPS 1998.

### 5.8.2. Partially Operative Otago Regional Policy Statement 2019

There are three operative chapters of the PORPS 2019 that are relevant for PC8 and PC1:

- Chapter 2: Kāi Tahu values and interests are recognised and kaitiakitaka is expressed
- Chapter 4: Communities in Otago are resilient, safe and healthy
- Chapter 5: People are able to use and enjoy Otago's natural and built environment

The relevant provisions from these chapters and an assessment of the Plan Changes against them is set out in Table 23 below. These provisions are operative and must be given effect to by the Plan Changes.

*Table 23: Assessment of PORPS 2019*

| Provision(s) | Assessment |
|---|---|
| **Chapter 2: Kāi Tahu values and interests are recognised and kaitiakitaka is expressed** | |
| **Objective 2.2**<br>Kāi Tahu values, interests and customary resources are recognised and provided for.<br><br>**Policy 2.2.1**<br>Manage the natural environment to support Kāi Tahu wellbeing by all of the following:<br>(a) Recognising and providing for their customary uses and cultural values in Schedules 1A and B; and<br>(b) Safe-guarding the life-supporting capacity of natural resources. | PC8 and PC1 seek to safeguard the life-supporting capacity of natural resources by strengthening management of activities known to cause contaminant loss to water. This will assist in recognising and providing for Kāi Tahu values, interests and customary resources. |
| **Chapter 4: Communities in Otago are resilient, safe and healthy** | |

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| **Objective 4.3**<br>Infrastructure is managed and developed in a sustainable way.<br><br>**Policy 4.3.2**<br>Recognise the national and regional significance of all of the following infrastructure:<br>(a) Renewable electricity generation activities, where they supply the National Grid or local distribution network;<br>(b) National Grid;<br>(c) Electricity sub-transmission infrastructure;<br>(d) Telecommunication and radiocommunication facilities;<br>(e) Roads classified as being of national or regional importance;<br>(f) Ports and airports and associated navigation infrastructure;<br>(g) Defence facilities;<br>(h) Rail infrastructure;<br>(i) Municipal infrastructure.<br><br>**Policy 4.3.3**<br>Provide for the functional needs of infrastructure that has regional or national significance, including safety. | PC8 introduces amendments strengthens the policies for managing discharges from stormwater and wastewater infrastructure which contributes to healthy and safe communities as well as improved environmental outcomes.<br><br>PC8 contains a minor amendment to one policy which sets out how activities relating to nationally or regionally important infrastructure may be carried out within Regionally Significant Wetlands. The effect of the change is to give better effect to these provisions of the PORPS 2019 by aligning the terminology. |
| **Objective 4.6**<br>Hazardous substances, contaminated land and waste materials do not harm human health or the quality of the environment in Otago.<br><br>**Policy 4.6.2**<br>Manage the use, storage and disposal of hazardous substances by all of the following:<br>…<br>(f) Ensuring hazardous substances are treated or disposed of in accordance with the relevant regulatory requirements<br>…<br><br>**Policy 4.6.9**<br>Avoid the creation of new contaminated land or, where this is not practicable, minimise adverse effects on the environment. | PC1 introduces changes to the use of dust suppressants, including by prohibiting the use of waste oil. Waste oil is a hazardous substance that can adversely affect water quality through run-off when it is applied to land. Use of waste oil as a dust suppressant is not in accordance with the relevant regulatory requirements (namely the Hazardous Substances and New Organisms Act 1996; HSNO). PC1 will give effect to the PORPS 2019 by prohibiting the use of a hazardous substance in circumstances where contaminants may enter water and by complying with the relevant HSNO requirements for disposal.<br><br>PC1 also introduces changes to the policies for managing landfills in order to provide stronger guidance for decision-makers on resource consent applications. These changes are designed to require best industry practice is met by landfills in order to minimise adverse effects on the environment from landfill establishment and operation. |
| **Chapter 5: People are able to use and enjoy Otago's natural and built environment** | |
| **Objective 5.4**<br>Adverse effects of using and enjoying Otago's natural and physical resources and minimised. | The provisions of PC8 and PC1 broadly introduce minimum standards for particular activities with adverse effects on water quality. This will assist with minimising adverse effects, and |

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| **Policy 5.3.1**<br>Manage activities in rural areas, to support the region's economy and communities, by:<br>(a) Enabling primary production and other rural activities that support that production;<br>*(b) not relevant*<br>(c) Minimising the loss of significant soils;<br>(d) Restricting the establishment of incompatible activities in rural areas that are likely to lead to reverse sensitivity effects;<br>*(e) not relevant*<br>(f) Providing for other activities that have a functional need to locate in rural areas.<br><br>**Policy 5.4.1**<br>Manage offensive or objectionable discharge to land, water and air by:<br>(a) Avoiding significant adverse effects of those discharges;<br>(b) Avoiding significant adverse effects of discharges of human or animal waste directly, or in close proximity, to water or mahika kai sites;<br>(c) Avoiding, remedying or mitigating other adverse effects of those discharges. | therefore maintaining or enhancing water quality. PC8 in particular has been prepared in recognition of the need to continue to enable primary production in the region, but to ensure appropriate management of adverse effects on water quality.<br><br>A number of the provisions within the scope of PC8 and PC1 relate to types of discharges that are likely to be offensive or objectionable, including discharges of wastewater, animal waste, and waste oil. The standards proposed by PC8 and PC1 seek to avoid significant adverse effects and avoid, remedy or mitigate other adverse effects. |

The Plan Changes are considered to give effect to the PORPS 2019.

### 5.8.3. Proposed Otago Regional Policy Statement 2016

There is one inoperative chapter of the PORPS 2016 that is relevant for PC8 and PC1:

- Chapter 3: Otago has high quality natural resources and ecosystems

The relevant provisions from these chapters and an assessment of the Plan Changes against them is set out in Table 24 below. The provisions of Chapter 3 are not yet operative but ORC must still have regard to them. These provisions have been subject to mediation on appeals and agreements between appeal parties have been reached and have been approved by the Environment Court. A consent order has been issued by the Environment Court to that effect.

*Table 24: Assessment of PORPS 2016*

| Provision(s) | Assessment |
|---|---|
| **Chapter 3: Otago has high quality natural resources and ecosystems** | |
| **Objective 3.1**<br>The values (including intrinsic values) of ecosystems and natural resources are recognises and maintained, or enhanced where degraded.<br><br>**Policy 3.1.1**<br>Safeguard the life-supporting capacity of fresh water and manage fresh water to:<br>a) Maintain good quality water and enhance water quality where it is degraded, including for: | In line with the high level direction in the PORPS 2016, the provisions of PC8 and PC1 broadly seek to maintain or improve water quality. The majority of the provisions in both Plan Changes seek to reduce the adverse effects of land uses, and discharge of contaminants to water or land where they may enter water.<br><br><u>Intensive grazing</u> |

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| i. Important recreation values, including contact recreation; and<br>ii. Existing drinking and stock water supplies;<br>b) Maintain or enhance aquatic:<br>i. Ecosystem health;<br>ii. Indigenous habitats; and<br>iii. Indigenous species and their migratory patterns;<br>c) Avoid aquifer compaction and seawater intrusion;<br>d) Maintain or enhance, as far as practicable:<br>i. Natural functioning of rivers, lakes and wetlands, their riparian margins, and aquifers;<br>ii. Coastal values supported by fresh water;<br>iii. The habitat of trout and salmon unless detrimental to indigenous biological diversity; and<br>iv. Amenity and landscape values of rivers, lakes and wetlands;<br>e) Control the adverse effects of pest species, prevent their introduction and reduce their spread;<br>f) Avoid, remedy or mitigate the adverse effects of natural hazards, including flooding and erosion; and<br>g) Avoid, remedy or mitigate adverse effects on existing infrastructure that is reliant on fresh water.<br><br>**Policy 3.1.2**<br>Manage the beds of rivers, lakes, wetlands, their margins, and riparian vegetation to:<br>a) Safeguard the life supporting capacity of fresh water;<br>b) Maintain good quality water, or enhance it where it has been degraded;<br>c) Maintain or enhance bank stability;<br>d) Maintain or enhance ecosystem health and indigenous biological diversity;<br>e) Maintain or enhance, as far as practicable:<br>i. Their natural functioning and character; and<br>ii. Amenity values;<br>f) Control the adverse effects of pest species, prevent their introduction and reduce their spread; and,<br>g) Avoid, remedy or mitigate the adverse effects of natural hazards, including flooding and erosion.<br><br>**Policy 3.1.8**<br>Minimise soil erosion resulting from activities, by undertaking all of the following:<br>a) Using appropriate erosion controls and soil conservation methods;<br>b) Maintaining vegetative cover on erosion prone land;<br>c) Remediating land where significant soil erosion has occurred;<br>d) Encouraging activities that enhance soil retention.<br><br>**Policy 3.1.13** | Intensive grazing can have adverse effects on water quality from sediment loss as a result of the disturbance and exposure of large tracts of bare soil. Intensive grazing can also result in the loss of contaminants such as nitrogen and *E. coli*. PC8 introduces a permitted activity rule requiring good management practices to be implemented.<br><br><u>Stock exclusion from water</u><br>PC8 introduces a requirement for stock to be excluded from water bodies according to the type of stock and water body. The timeframes for compliance with this rule have been staged to allow costs to be distributed over the coming years rather than all at once.<br><br><u>Effluent management</u><br>PC8 introduces minimum standards for the storage of animal effluent, requiring operators to design and construct storage facilities in accordance with best practice and to manage their on-going use and maintenance. PC8 also proposes more stringent management of effluent application to land in order to better manage the adverse effects that can arise.<br><br><u>Sediment from earthworks</u><br>PC8 addresses this and strengthens management of this activity by including new provisions with minimum standards requiring best industry practice be adopted and requiring activities to seek resource consent above certain thresholds. Resource consents are a way for ORC to proactively manage the discharge by placing conditions on the exercise of the consent.<br><br><u>Policies</u><br>PC8 introduces amendments or new policies on a range of topics, including discharges of stormwater and wastewater and rural discharges. This will assist decision-makers on resource consent applications to assess whether proposals are acceptable in terms of their environmental effects. For farming activities in particular, new Policy 7.D.9 signals the longer-term resource management goals for these activities that ORC aims to achieve progressively. |

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| Encourage, facilitate and support activities that contribute to the resilience and enhancement of the natural environment by where applicable:<br>a) Improving water quality and quantity;<br>b) Protecting or restoring habitat for indigenous species;<br>… | <u>Sediment traps</u><br>PC8 incentivises the use of sediment traps as a mitigation measure of sedimentation of water by allowing in-stream sediment traps to be constructed as a permitted activity, subject to minimum standards.<br><br><u>Waste oil and landfills</u><br>PC1 amends the Waste Plan to strengthen the management of waste oil as a dust suppressant and policy direction on landfills. |

The Plan Changes are considered to give effect to the PORPS 2016, with one exception. Method 4.1.5 establishes that district plans will be responsible for managing the discharges of dust, silt and sediment associated with earthworks and land use. This is not considered to reflect the division of responsibilities between regional councils and territorial authorities in sections 30 and 31 of the RMA. Controlling land uses for the purpose of water quality is a regional council function and therefore provisions for managing earthworks for residential development are appropriate to include in the Water Plan.

## 5.9. Regional Plans

Under section 67(4)(b), a regional plan must not be inconsistent with any other regional plan for the region. There are four regional plans in place in Otago:

- Regional Plan: Waste for Otago (the Waste Plan)
- Regional Plan: Water for Otago (the Water Plan)
- Regional Plan: Air for Otago (the Air Plan)
- Regional Plan: Coast for Otago (the Coast Plan)

### 5.9.1. The Water and Waste Plans

ORC publicly notified the Water Plan in 1998. Following the process of submissions, hearings and appeals, Council made the Water Plan operative in 2004. The Water Plan manages all other aspects of freshwater use in Otago. PC8 focuses on amending existing provisions or introducing new provisions that are within the scope of the Water Plan.

ORC publicly notified the Waste Plan in 1994. Following the process of submissions, hearings and appeals, Council made the Waste Plan operative in 1997. The Waste Plan was prepared to manage all aspects of waste in Otago, including hazardous substances. It includes rules applying to uses of land and discharges to air, water and land. PC1 maintains this distinction and is restricted to amending existing provisions within the scope of the Waste Plan.

There is potentially some duplication between the Waste and Water Plans due to the nature of the activities they manage and the 'effects-based' approach of the Water Plan in particular. Generally, this results in the provisions of both plans applying to an activity. This is a known issue with the current approach to the plans and is intended to be addressed through the wider review of both plans in the coming years.

The provisions of PC8 are not considered to be inconsistent with the provisions in the Waste Plan and the provisions of PC1 are not considered to be inconsistent with the provisions in the Water Plan.

### 5.9.2. The Air Plan

ORC publicly notified the Air Plan in 1998. Following the process of submissions, hearings and appeals, Council made the Air Plan operative in 2003. The Air Plan contains provisions managing the discharge of contaminants to air. There are no matters in PC8 that relate to discharges to air, therefore none of the provisions are inconsistent with the Air Plan.

The rules for landfills in the Waste Plan manage discharges into land, water and air. Resource consents are required for all discharges from landfills as a discretionary activity under the Waste Plan. Resource consent is also required for the discharge of odour from a landfill under the Air Plan. Although it is not particularly efficient to manage these types of discharge under two separate plans, the overall intent of the provisions in both plans is consistent. The broader issue of overlaps between the Air and Waste Plans will be addressed through the full review of the Waste Plan.

The rules for applying used oil to roads in the Waste Plan manage discharges to land only. The Air Plan contains rules managing discharges to air, including dust. The rules in the Waste Plan will help to achieve the objectives and policies of the Air Plan by providing for the use of dust suppressants which assist with preventing the adverse effects of dust discharges from unsealed roads. In particular, PC1 will assist with achieving Objective 6.1.2 and Policy 10.1.1 of the Air Plan.

None of the provisions in PC8 or PC1 are considered to be inconsistent with the Air Plan.

### 5.9.3. The Coast Plan

ORC publicly notified the Coast Plan in 1994. Following the process of submissions, hearings and appeals, and approval from the Minister of Conservation, Council made the Coast Plan operative in 2001.

The Coast Plan manages the use of resources in the coastal marine area and recognises that the Coast Plan only deals with point source discharges within the coastal marine area, with non-point source discharges and discharges of contaminants outside the coastal marine area managed by the Water or Waste Plans. Chapter 10 of the Coast Plan manages discharges in the coastal marine area and seeks to maintain existing water quality and to achieve water quality suitable for contact recreation and the eating of shellfish within 10 years of the date of approval of the Plan (Objective 10.3.1), consistent with the goals of the Water Plan. Chapter 10 places restrictions on a number of activities in order to avoid, remedy or mitigate adverse effects on water quality. The quantitative freshwater objectives in Schedule 15 of the Water Plan were developed to be consistent with the water quality objectives in the Coast Plan.

PC8 and PC1 seek to improve management of point source and non-point source discharges outside the coastal marine area, the outcome of which is considered to be consistent with the Coast Plan.

## 5.10. Iwi Management Plans

Section 66(2A)(a) requires the regional council to take into account any relevant planning document that is recognised by an iwi authority and that is lodged with the regional council. There are two iwi management plans lodged with ORC: the Kāi Tahu ki Otago Natural Resources Management Plan 2005 and Te Tangi a Tauira: Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008.

### 5.10.1. Kāi Tahu ki Otago Natural Resources Management Plan 2005

Section 5.3 of the Plan focuses on Wai Māori. Some of the issues of concern include deteriorating water quality, particularly the cumulative effects of discharges, the discharge of human waste and other contaminants from point and non-point source discharges to water, stock entering waterways and sedimentation from land use and development. Section 5.3.3 contains the Wai Māori General Objectives, the following of which are relevant to these Plan Changes:

- The spiritual and cultural significance of water to Kāi Tahu ki Otago is recognised in all water management.
- The waters of the Otago Catchment are healthy and support Kāi Tahu ki Otago customs.
- There is no discharge of human waste directly to water.
- Contaminants being discharged directly or indirectly to water are reduced.

Section 5.3.4 contains the Wai Māori General Policies that include, of most relevance to these Plan Changes:

- To protect and restore the mauri of all water (Policy 4).
- To require land disposal for human effluent and contaminants (Policy 8).
- To encourage identification of non-point source pollution and mitigate, avoid or remedy adverse effects on Kāi Tahu ki Otago values (Policy 11).
- To require all discharge systems be well maintained and regularly serviced (Policy 15).
- To require that all practical measures are taken to minimise sedimentation or discharge of sedimentation (Policy 37).
- To encourage the exclusion of stock from waterways (Policy 55)

The provisions of the Kāi Tahi ki Otago Natural Resources Management Plan have been taken into account when preparing these Plan Changes.

### 5.10.2. Te Tangi o Tauira: Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008

This plan applies from the true right of the Clutha River south to the border of the Otago region. Section 3.5.10 sets out the General Water Policy. Relevantly for these Plan Changes, the issues for iwi include:

- Stock grazing adjacent to and in the beds of waterways
- Discharges to land activities (e.g. farm effluent) and potential for run off into waterways
- Effects on the mauri of Murihiku Rivers due to land use and discharge activities, and water abstractions
- Poor water quality in some Murihiku Rivers: our children are not able to swim in some rivers

Section 3.5.10 also contains policies for water, including:

- Promote catchment management planning (ki uta ki tai) as a means to recognise and provide for the relationship between land and water
- Work with Regional Councils to ensure that cultural values and perspectives associated with freshwater management are reflected in statutory water plans, best practice guidelines and strategies, and in resource consent processes for activities involving water
- Use riparian enhancement, buffer zones, fencing and related streamside management tools as conditions of consent to ensure that human use of rivers and their water does not compromise river health.

- Avoid the use of rivers as a receiving environment for the discharge of contaminants (e.g. industrial, residential, recreational or agricultural sources)

The provisions of Te Tangi a Tauira have been taken into account when preparing these Plan Changes.

## 5.11. Other Management Plans

Section 66(2)(c)(i) requires regional councils to have regard to any management plans and strategies prepared under other Acts.

### 5.11.1. Otago Conservation Management Strategy 2016

The Conservation Act 1987 requires the Department of Conservation to prepare a conservation management strategy for each region. The Otago Conservation Management Strategy describes the conservation values present in Otago and provides guidance for the Department's work in the form of a vision supported by objectives, outcomes, policies and milestones. The Strategy applies to all public conservation land and waters in Otago (noting that this is based on the old Otago conservancy boundary which now covers parts of Eastern South Island and Southern South Island regions).

The vision for Otago includes that Otago's diverse freshwater systems support healthy aquatic ecosystems, all riparian margins are clothed in predominantly indigenous vegetation and people can safely swim in and gather food from all freshwater systems. Objectives 1.5.1.6, 1.5.1.12 and 1.5.1.19 relating to freshwater quality, integrated catchment management and management of water bodies are particularly relevant for these Plan Changes.

The Otago Conservation Management Strategy has been given regard in the preparation of these Plan Changes. Although it has a different application, many of the outcomes sought relating to freshwater are consistent with the intent of the changes in these Plan Changes.

### 5.11.2. Otago Sports Fish and Game Management Plan 2015-2025

The Conservation Act 1987 requires each Fish and Game Council to prepare any sports fish and game management plans that are necessary for the management of sports fish and game birds within its region of jurisdiction, for approval by the Minister of Conservation. There is one Fish and Game Council that falls wholly within the Otago region: the Otago Fish and Game Council. There is one management plan produced for Otago: the Otago Sports Fish and Game Management Plan 2015-2025. Most relevant to these Plan Changes is the outcome and the issues, objectives and policies for habitat protection and management. The outcome for this topic is:

> *Water quality ranges between good and excellent in Otago rivers, lakes and wetlands. River flows and lake or wetland water levels combine with the natural characteristics of waterways to support natural ecosystems functioning at a level that supports productive and diverse fish and game populations. Rivers are swimmable, fishable, and safe for food gathering. Otago's wetlands are improving in terms of quality, diversity and species productivity and the overall area of wetlands is expanding, underpinned by the regional focus on protection of regionally significant and other smaller wetlands, as well as an active programme of wetland creation on private land. Degraded headwater wetlands have been restored and contribute to maintenance of summer low flows in catchments downstream. Overall, rivers and wetlands are highly valued by the public for their intrinsic qualities and amenity values. (p.35)*

This management plan has been given regard in the preparation of these Plan Changes, noting that it establishes management frameworks for Fish and Game and its staff to ensure the sustained use of sports fish and game bird resources for anglers and hunters in the region.

## 5.12. Changing policy context

Since the Plan Changes were formally initiated by ORC, there have been changes signalled to the national and regional policy frameworks by central government and ORC. These do not directly affect the Plan Changes at this stage as the proposals are only drafts, however they may significantly alter the current approach to managing freshwater in the future if they are made operative and there is uncertainty about whether the Plan Changes will deliver the outcomes sought by those amended national and regional policies. Whether it is worthwhile to continue with the Plan Changes has been considered by ORC in detail. The potential for change is not a reason not to act on its own and it would create a risk of further degradation in water quality. The changes proposed by these Plan Changes address existing issues with the Plans and will support the transition towards a new planning regime by requiring resource users to begin to improve their practices now.

The effect of these proposals is to even further constrain the lifetime of these Plan Changes, given there is the potential for significant change to the higher order documents in coming years.

### 5.12.1. National policy

Shortly after the scope of PC8 and PC1 was approved by ORC, the Government released *Action for healthy waterways: a discussion document on national direction for our essential freshwater*. Part of that discussion document included:

- Draft changes to the National Policy Statement for Freshwater Management
- Draft National Environmental Standards for Freshwater
- Draft Stock Exclusion Regulations

These proposals indicate a substantial change in the current framework for managing freshwater resources. Submissions on the proposals closed on 31 October 2019 and are currently being summarised. No further timeframes have been announced by the Government so there is considerable uncertainty around when (or whether) the proposals will be progressed further and the extent to which the proposals may differ from the drafts produced in 2019. The RMA does not require draft national policy statements, national environmental standards or regulations to be given any weight in decision-making on plans or plan changes.

There are significant implications arising from the implementation of the package of proposals and ORC has been mindful of balancing the need for a stronger interim planning framework until the new planning framework (RPS and LWRP) is prepared with the potential for duplication, uncertainty and cost arising from managing many of the same activities the Government is proposing to manage.

The following sections briefly outline the key changes proposed and how they may affect Otago's regional plans, including the proposed Plan Changes.

#### 5.12.1.1. Draft National Policy Statement for Freshwater Management 2019

The draft changes to the NPSFM represent a complete overhaul of the current approach. Some of the most significant changes proposed are:

- Clarifying that the health and wellbeing of water will be put first in decision-making, providing for essential human needs (such as drinking water) will be second, and other uses will follow.
- Amending the structure and content to reinforce an holistic approach to freshwater management.
- Stronger requirements to identify and reflect Māori values in freshwater planning.

- Introducing new or revised indicators of ecosystem health to be monitored and either maintained or improved:
    - Nutrients (nitrogen and phosphorus)
    - Sediment
    - Fish and macroinvertebrate numbers
    - Lake macrophytes (amount of native or invasive plants)
    - River system metabolism
    - Dissolved oxygen in rivers and lakes.
- Introducing higher standards for 'swimmability' in summer.
- Faster implementation of the NPSFM in regional plans.

These changes will affect all of Otago's planning documents in the longer term, however the Plan Changes are not directly affected as they are not required by the RMA to consider draft national policy statements.

#### 5.12.1.2. Proposed National Environmental Standards for Freshwater 2019

The Proposed National Environmental Standards for Freshwater (NESFW) include rules to manage a range of specific activities:

- Vegetation destruction, earth disturbance and water takes in wetlands (including specific provisions for nationally and regionally significant infrastructure).
- Infilling of riverbeds.
- Providing for fish passage.
- Feedlots, sacrifice paddocks, stock holding areas and intensive winter grazing.
- Intensification of farming activities.
- Preparation, certification, implementation and auditing of mandatory Farm Plans.

The Proposed NESFW also includes a proposal for introducing a cap on nitrogen discharges in specified catchments. If the NESFW comes into force, its content will override regional plans, including the Water and Waste Plans. Without undertaking a full assessment of the implications, it is clear that there are likely to be considerable impacts on the following parts of PC8:

- Nationally or regionally significant infrastructure in wetlands.
- Good farming practices
- Intensive grazing
- Sediment traps

There is a risk with progressing PC8 that ORC will duplicate or conflict with the NESFW if it comes into force, incurring additional costs for plan users. However, potential for change is not a reasons not to act now given the risk of further degradation of water quality in the meantime.

#### 5.12.1.3. Draft Stock Exclusion Regulations

The draft stock exclusion regulations restrict stock access to water in different ways depending on the type of water body (wetlands, rivers and lakes), stock type (dairy, dairy support, pigs, beef cattle, deer) and slope of land. The regulations impose different timeframes for exclusion depending on whether the land is categorised as "low-slope" or "non-low-slope". "Low-slope" land is defined as land that is classified as low slope on the NESFW mapping tool which shows land parcels where the average slope is less than or equal to either 5, 7 or 10 degrees (still to be decided) and "non-low-slope" land is defined

as land that is not classified as lowland on the NESFW mapping tool and where the average slope at the land parcel scale is greater than either 5, 7 or 10 degrees (still to be decided).

The matters that remain undecided in the draft regulations make these proposals even more uncertain than those in the Draft NPSFM and Proposed NESFW. Restricting stock access to water is expensive for farmers to implement due to the costs involved in establishing alternative drinking water supplies and effectively excluding stock.

### 5.12.2. Regional policy

As a result of the Minister for the Environment's section 24 investigation into ORC's planning functions, ORC has revised some of its longer-term work programmes. These revisions affect the RPSs and the full Water and Waste Plan reviews.

#### 5.12.2.1. Regional policy statements

In response to recommendations from the Minister, ORC has approved the preparation of a new RPS to be notified in November 2020. It is not possible to predict the extent of change between the current RPSs and the new RPS, however the report by Prof Skelton indicated that the PORPS 2019 does not give effect to the NPSFM 2014 (as amended 2017) and that within the provisions freshwater management is not as prominent as one would expect.

It is reasonable to assume that the freshwater-related components of the RPSs, which are the most relevant for these Plan Changes, will be the provisions subject to the most change through the new RPS. There are also widespread structural changes required to implement the National Planning Standards which ORC has until 1 May 2022 to implement.

#### 5.12.2.2. Regional plan reviews

When the scope of the Plan Changes was approved in August 2019, ORC planned to complete full reviews of the Water and Waste Plans and notify a new LWRP by November 2025. This timeframe was revised to December 2023 in response to the Minister's recommendations and the signalled changes to the NPSFM. Like the RPS changes, this does not affect the Plan Changes directly but shortens further the expected lifespan of the provisions proposed.

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